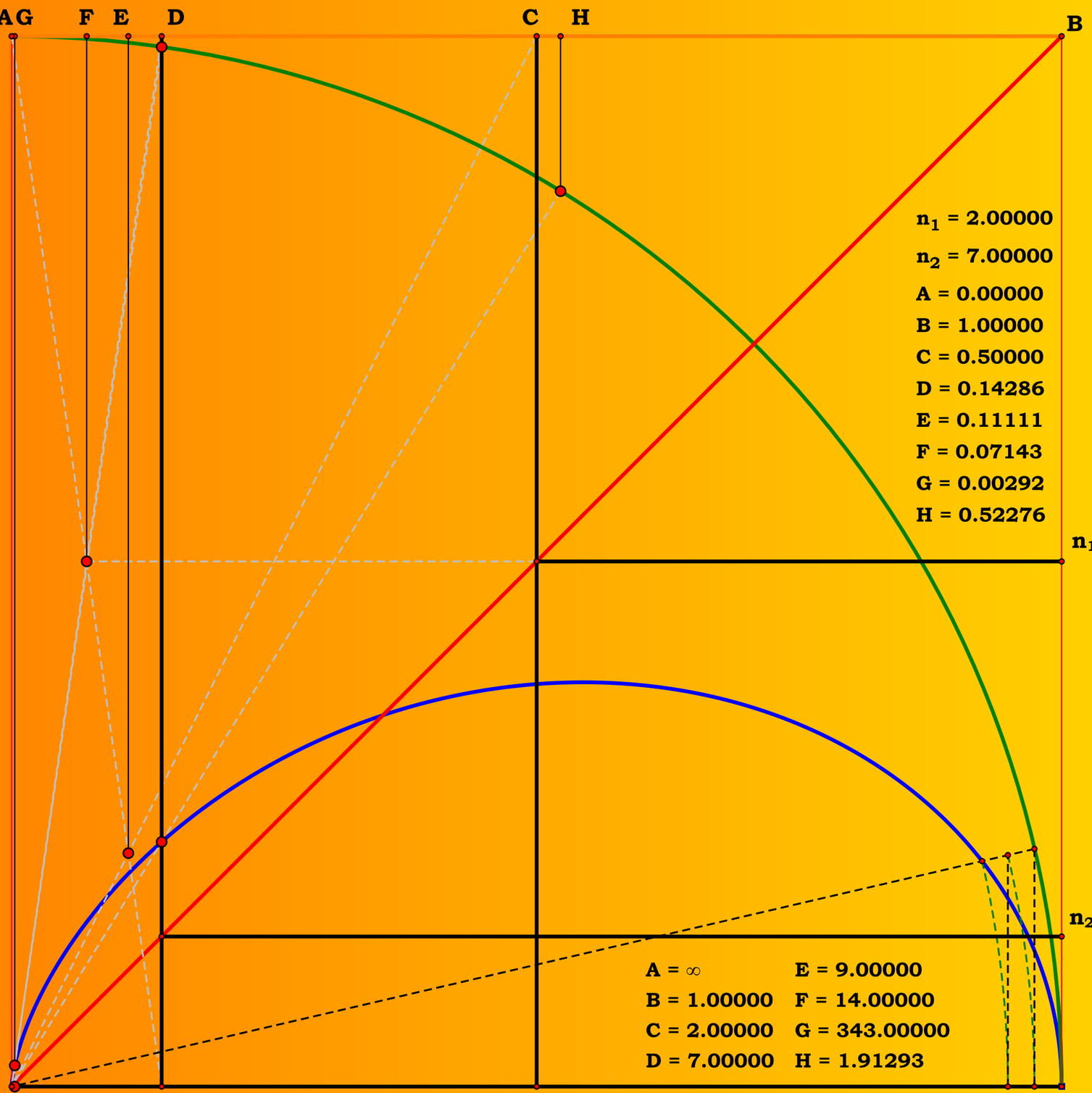


The One

1 Crossing Swords Appendix

John Clark

Mathcad Appendix

Sunday, October 22, 2023

The Book of Paths, the One, and the Mathcad Appendix form a kind of trilogy which I hope will end up as a quadrility by the addition of the common grammar application of Dialectic provided by Plato's dialogs. I have already made that work, *Xenophon to Plato in the Nude*, but I still edit it perfecting it; it is up to the reader to continue one's studies after they acquire some mastery with this work. Suffice it to say, it is true, Plato's admission requirements for learning dialectic; Let no one ignorant of Geometry enter here. Only through the practice of geometry, with your own hand, do you, on some level, learn all about how Language, as a Universal Binary, translates into grammar. From the figures you learn arithmetic and algebra by the management of nouns and verbs, relatives, and correlatives. You just might, with sufficient intelligence, learn judgment.

For more elementary studies, there are the *Element*s of Euclid which I have also done versions of, and The Delian Quest, and other works in geometry I have posted.

1CST1R0

Given. $A := .66631$ $B := .38788$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$

Descriptions.

$cd := \frac{B}{A}$ $de := \frac{B \cdot cd}{1 - cd}$

$be := B + de$ $C := be$ $C = 0.928234$

Definitions.

$C - \frac{A \cdot B}{A - B} = 0$

$C - \frac{1}{(n_2 - n_1)} = 0$

$n_1 = 1.50080$

$n_2 = 2.57814$

$A = 0.66631$

$B = 0.38788$

$C = 0.92821$

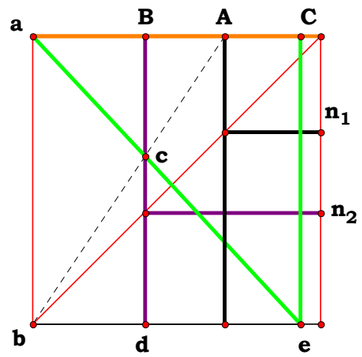
$\frac{1}{A} = 1.50080$

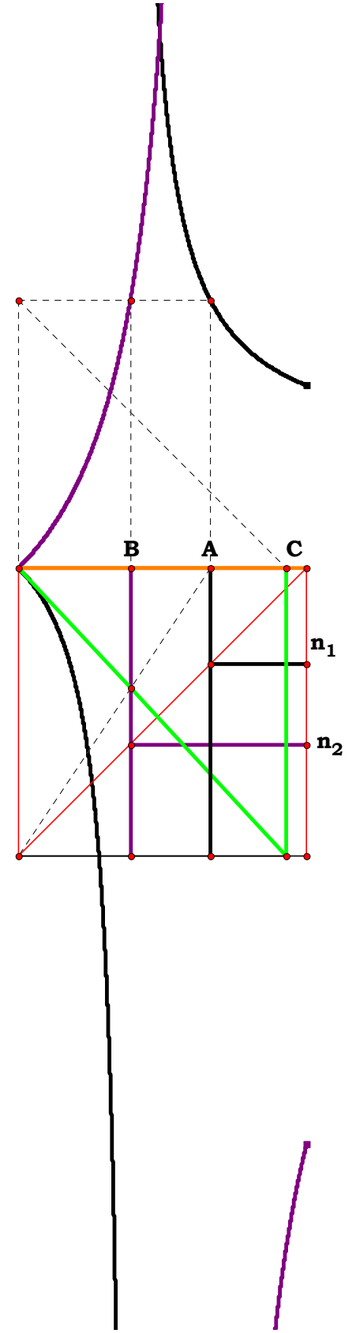
$\frac{1}{B} = 2.57814$

$\frac{1}{C} = 1.07734$

$\frac{A \cdot B}{A-B} - C = 0.00000$

$\frac{1}{n_2 - n_1} - C = 0.00000$





$n_1 = 1.50080$

$n_2 = 2.57814$

$A = 0.66631$

$B = 0.38788$

$C = 0.92821$

$\frac{1}{A} = 1.50080$

$\frac{1}{B} = 2.57814$

$\frac{1}{C} = 1.07734$

$\frac{A \cdot B}{A-B} - C = 0.00000$

$\frac{1}{n_2 - n_1} - C = 0.00000$

1CST1R1

Given. $A := .74955$ $B := .17886$

$C := .65334$ $D := .31640$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$bg := \frac{A \cdot B}{A - B}$ $fg := \frac{bg}{C}$

$E := \frac{D}{fg}$ $E = 0.879958$

Definitions.

$E - \frac{C \cdot D \cdot (A - B)}{A \cdot B} = 0$

$n_1 - \frac{1}{A} = 0$ $n_2 - \frac{1}{B} = 0$ $n_3 - \frac{1}{C} = 0$ $n_4 - \frac{1}{D} = 0$

$E - \frac{(n_2 - n_1)}{n_3 \cdot n_4} = 0$

$n_1 = 1.33413$

$n_2 = 5.59087$

$n_3 = 1.53059$

$n_4 = 3.16056$

$A = 0.74955$

$B = 0.17886$

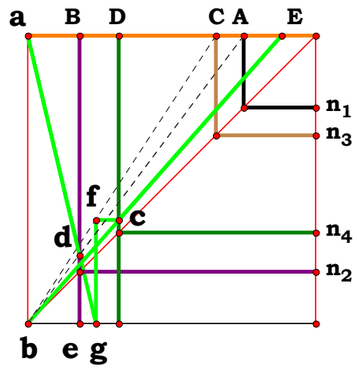
$C = 0.65334$

$D = 0.31640$

$E = 0.87995$

$\frac{C \cdot D \cdot (A-B)}{A \cdot B} - E = 0.00000$

$\frac{n_2 - n_1}{n_3 \cdot n_4} - E = 0.00000$



$n_1 = 1.33413$

$n_2 = 5.59087$

$n_3 = 1.53059$

$n_4 = 3.16056$

$A = 0.74955$

$B = 0.17886$

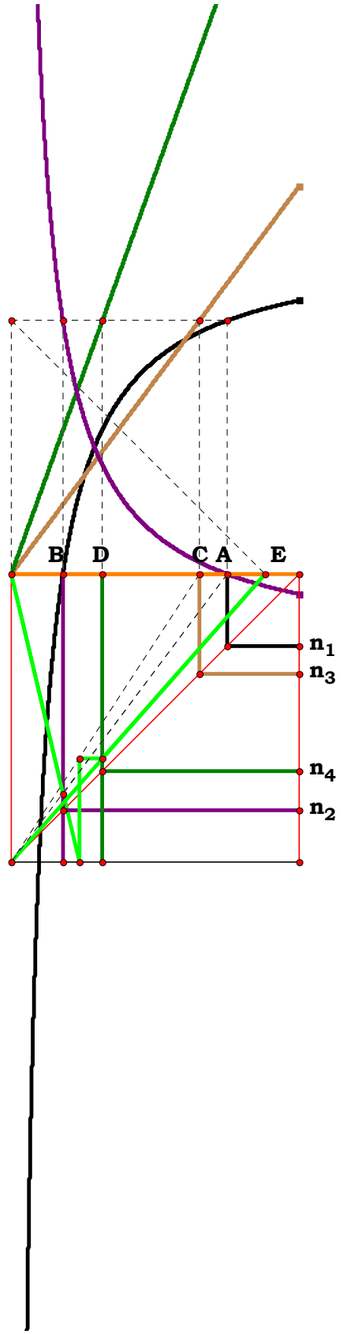
$C = 0.65334$

$D = 0.31640$

$E = 0.87995$

$\frac{C \cdot D \cdot (A-B)}{A \cdot B} - E = 0.00000$

$\frac{n_2 - n_1}{n_3 \cdot n_4} - E = 0.00000$



1CST1R3

Given. $A := .54819$ $B := .22411$

$C := .72243$

Descriptions.

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

$$bf := \frac{A \cdot B}{A - B} \qquad ef := \frac{bf}{C}$$

$$D := \frac{bf}{1 - ef} \qquad D = 0.797644$$

Definitions.

$$D - \frac{A \cdot B \cdot C}{A \cdot C - A \cdot B - B \cdot C} = 0$$

$$D - \frac{1}{n_2 - n_1 - n_3} = 0$$

$n_1 = 1.82417$

$n_2 = 4.46215$

$n_3 = 1.38421$

$A = 0.54819$

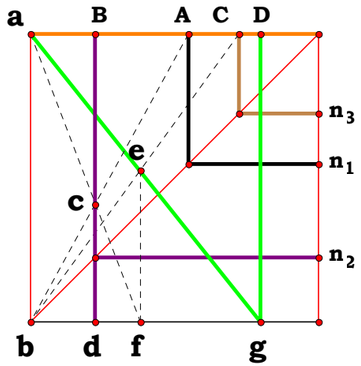
$B = 0.22411$

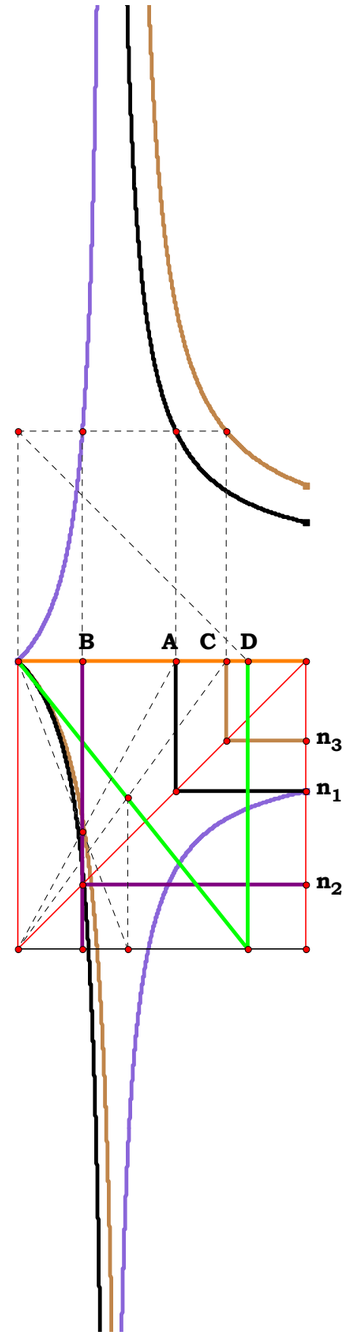
$C = 0.72243$

$D = 0.79760$

$\frac{(A \cdot B \cdot C)}{(A \cdot C - A \cdot B - B \cdot C)} - D = 0.00000$

$\frac{1}{n_2 - n_1 - n_3} - D = 0.00000$





$n_1 = 1.82417$

$n_2 = 4.46215$

$n_3 = 1.38421$

$A = 0.54819$

$B = 0.22411$

$C = 0.72243$

$D = 0.79760$

$\frac{(A \cdot B \cdot C)}{(A \cdot C - A \cdot B - B \cdot C)} - D = 0.00000$

$\frac{1}{n_2 - n_1 - n_3} - D = 0.00000$

1CST1R4

Given. $A := 4.76800$ $B := 1.19206$

$C := 3.24347$ $D := 1.42325$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$cd := \frac{B}{A}$ $bf := \frac{B}{1 - cd}$

$ef := \frac{bf}{C}$ $gd := 1 - ef$

$E := \frac{D}{gd}$ $E = 2.790922$

Definitions.

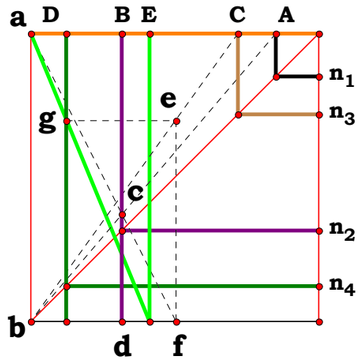
$$E - \frac{C \cdot D \cdot (B - A)}{A \cdot B - A \cdot C + B \cdot C} = 0$$

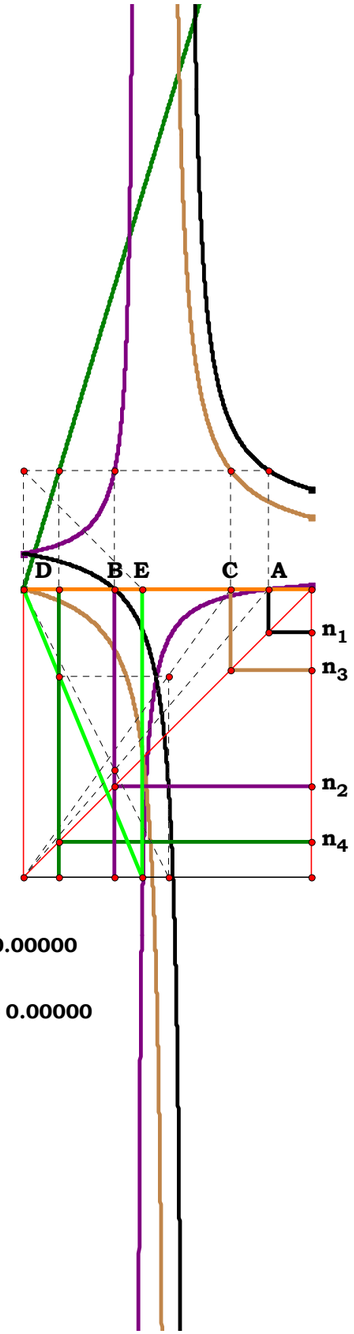
$$E - \frac{n_1 - n_2}{n_4 \cdot (n_3 + n_1 - n_2)} = 0$$

n_1 = 1.17578
n_2 = 3.16342
n_3 = 1.38998
n_4 = 8.06348
A = 0.85050
B = 0.31611
C = 0.71943
D = 0.12402
E = 0.41244

$\frac{(B-A)\cdot C\cdot D}{(A\cdot B-A\cdot C)+B\cdot C}$ -E = 0.00000

$\frac{n_1-n_2}{n_4\cdot((n_1-n_2)+n_3)}$ -E = 0.00000





n_1 = 1.17578
n_2 = 3.16342
n_3 = 1.38998
n_4 = 8.06348
A = 0.85050
B = 0.31611
C = 0.71943
D = 0.12402
E = 0.41244

$\frac{(B-A)\cdot C\cdot D}{(A\cdot B-A\cdot C)+B\cdot C}$ -E = 0.00000

$\frac{n_1-n_2}{n_4\cdot((n_1-n_2)+n_3)}$ -E = 0.00000

1CST1R5

Given. $A := .31161$ $B := .14086$

$C := .82297$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$eB := \frac{A - B}{A}$ $bf := \frac{B}{eB}$

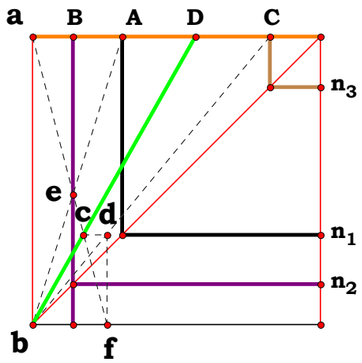
$df := \frac{bf}{C}$ $cd := bf \cdot df$

$D := \frac{bf - cd}{df}$ $D = 0.565908$

Definitions.

$D - \frac{A \cdot C - A \cdot B - B \cdot C}{A - B} = 0$

$D - \frac{(n_2 - n_1 - n_3)}{n_3 \cdot (n_2 - n_1)} = 0$



$n_1 = 3.20919$

$n_2 = 7.09910$

$n_3 = 1.21512$

$A = 0.31161$

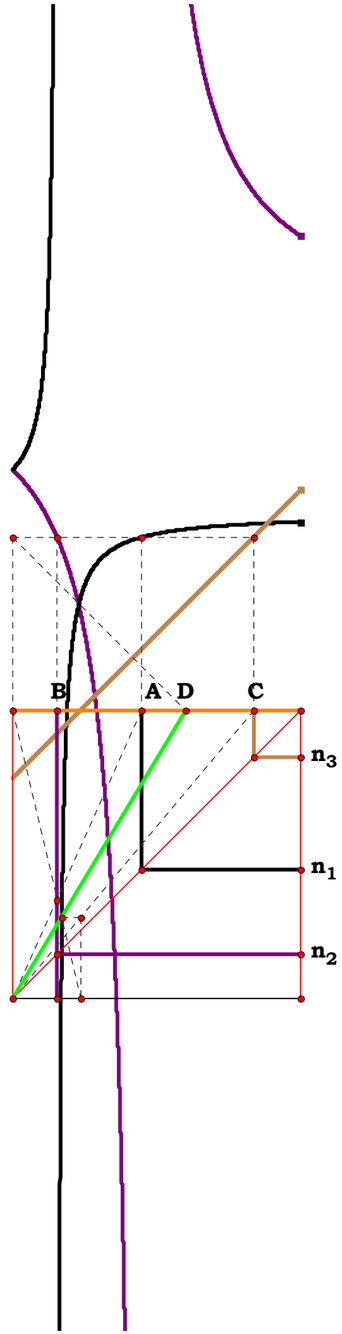
$B = 0.14086$

$C = 0.82297$

$D = 0.56589$

$\frac{A \cdot C - B \cdot C - A \cdot B}{A - B} - D = 0.00000$

$\frac{n_2 - n_1 - n_3}{n_3 \cdot (n_2 - n_1)} - D = 0.00000$



$n_1 = 2.23501$

$n_2 = 6.49322$

$n_3 = 1.19601$

$A = 0.44742$

$B = 0.15401$

$C = 0.83611$

$D = 0.60127$

$\frac{A \cdot C - B \cdot C - A \cdot B}{A - B} - D = 0.00000$

$\frac{n_2 - n_1 - n_3}{n_3 \cdot (n_2 - n_1)} - D = 0.00000$

1CST1R7

Given. $A := .48247$ $B := .25916$

$C := .32969$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$cB := 1 - \frac{B}{A}$ $D := \frac{C}{1 - cB}$

$D = 0.613773$

Definitions.

$D - \frac{A \cdot C}{B} = 0$

$D - \frac{n_2}{n_1 \cdot n_3} = 0$

$n_1 = 2.07265$

$n_2 = 3.85866$

$n_3 = 3.03315$

$A = 0.48247$

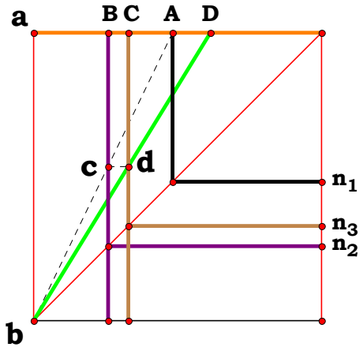
$B = 0.25916$

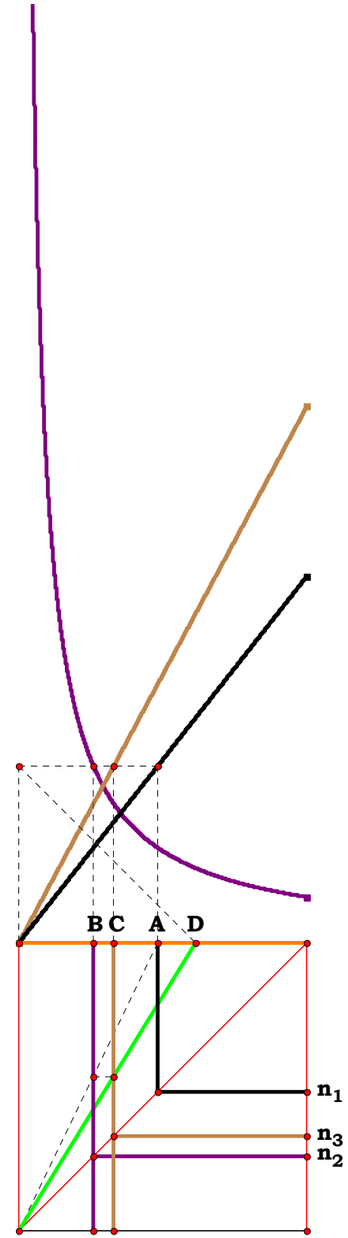
$C = 0.32969$

$D = 0.61379$

$\frac{A \cdot C}{B} - D = 0.00000$

$\frac{n_2}{n_1 \cdot n_3} - D = 0.00000$





$n_1 = 2.07265$

$n_2 = 3.85866$

$n_3 = 3.03315$

$A = 0.48247$

$B = 0.25916$

$C = 0.32969$

$D = 0.61379$

$\frac{A \cdot C}{B} - D = 0.00000$

$\frac{n_2}{n_1 \cdot n_3} - D = 0.00000$

1CST1R8

Given. $A := .71906$ $B := .45193$

$C := .32380$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$cB := 1 - \frac{B}{A}$ $ae := \frac{C}{1 - cB}$

$D := \frac{ae}{1 - cB}$ $D = 0.819719$

Definitions.

$D - \frac{A^2 \cdot C}{B^2} = 0$

$D - \frac{n_2{}^2}{n_1{}^2 \cdot n_3} = 0$

$n_1 = 1.39070$

$n_2 = 2.21272$

$n_3 = 3.08834$

$A = 0.71906$

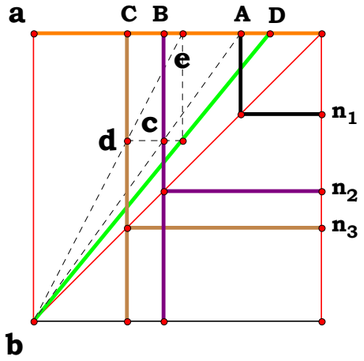
$B = 0.45193$

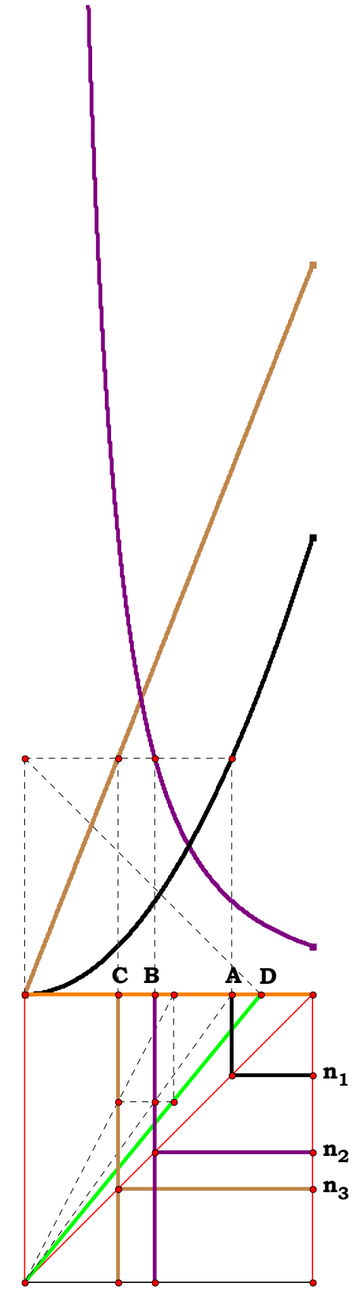
$C = 0.32380$

$D = 0.81971$

$\frac{A^2 \cdot C}{B^2} - D = 0.00000$

$\frac{n_2{}^2}{n_1{}^2 \cdot n_3} - D = 0.00000$





$n_1 = 1.39070$

$n_2 = 2.21272$

$n_3 = 3.08834$

$A = 0.71906$

$B = 0.45193$

$C = 0.32380$

$D = 0.81971$

$\frac{A^2 \cdot C}{B^2} - D = 0.00000$

$\frac{n_2{}^2}{n_1{}^2 \cdot n_3} - D = 0.00000$

1CST1R9

Given. $A := 4.91650$ $B := 1.52772$

$C := 2.02884$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$cB := \frac{A - B}{A}$ $D := \frac{C}{cB}$

$D = 2.943476$

Definitions.

$D - \frac{A \cdot C}{A - B} = 0$

$D - \frac{n_2}{n_3 \cdot (n_2 - n_1)} = 0$

$n_1 = 1.39922$

$n_2 = 3.67241$

$n_3 = 1.96376$

$A = 0.71468$

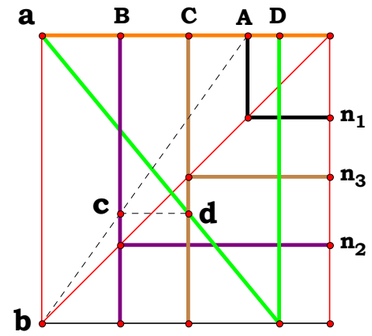
$B = 0.27230$

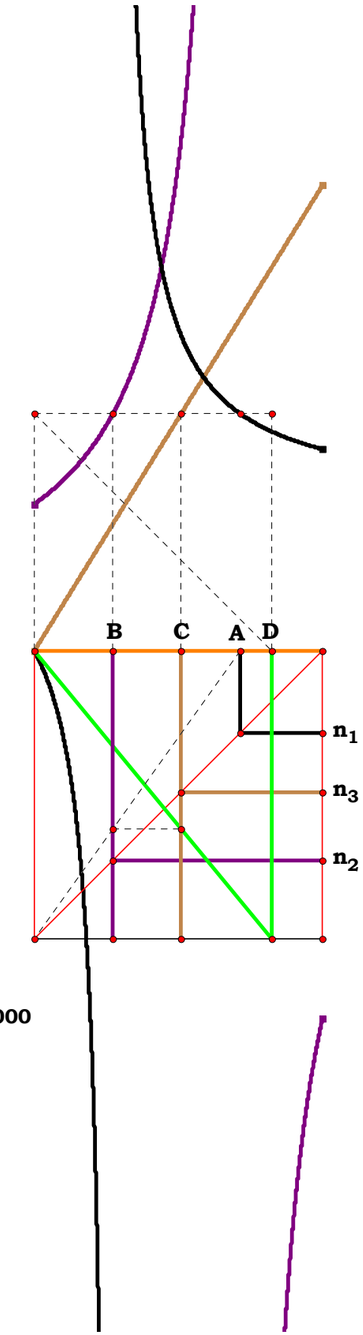
$C = 0.50923$

$D = 0.82268$

$\frac{A \cdot C}{A-B} - D = 0.00000$

$\frac{n_2}{n_3 \cdot (n_2 - n_1)} - D = 0.00000$





$n_1 = 1.39922$

$n_2 = 3.67241$

$n_3 = 1.96376$

$A = 0.71468$

$B = 0.27230$

$C = 0.50923$

$D = 0.82268$

$\frac{A \cdot C}{A-B} - D = 0.00000$

$\frac{n_2}{n_3 \cdot (n_2 - n_1)} - D = 0.00000$

1CST1R10

Given. $A := 3.19161$ $B := 1.68348$

$C := 1.24184$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$cB := \frac{A - B}{A}$ $ad := \frac{C}{1 - cB}$

$D := \frac{ad}{cB}$ $D = 4.982399$

Definitions.

$$D - \frac{A^2 \cdot C}{B \cdot (A - B)} = 0$$

$$D - \frac{{n_2}^2}{n_3 \cdot \left(n_1 \cdot n_2 - {n_1}^2\right)} = 0$$

$n_1 = 1.28139$

$n_2 = 2.99725$

$n_3 = 5.91982$

$A = 0.78040$

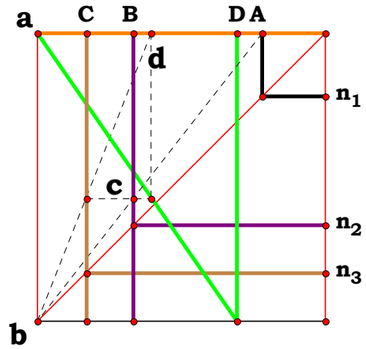
$B = 0.33364$

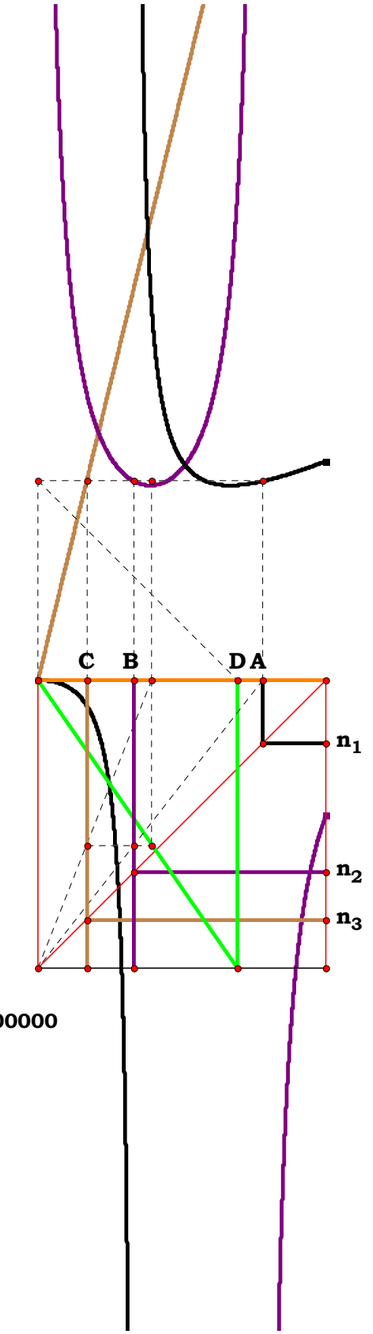
$C = 0.16892$

$D = 0.69020$

$\frac{A^2 \cdot C}{B \cdot (A-B)} - D = 0.00000$

$\frac{{n_2}^2}{n_3 \cdot (n_1 \cdot n_2 - {n_1}^2)} - D = 0.00000$





$n_1 = 1.28139$

$n_2 = 2.99725$

$n_3 = 5.91982$

$A = 0.78040$

$B = 0.33364$

$C = 0.16892$

$D = 0.69020$

$\frac{A^2 \cdot C}{B \cdot (A-B)} - D = 0.00000$

$\frac{{n_2}^2}{n_3 \cdot (n_1 \cdot n_2 - {n_1}^2)} - D = 0.00000$

1CST2R0

Given. $A := .77602$ $B := .40374$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$

Descriptions.

$bd := B$ $C := \frac{bd \cdot A}{bd + A}$

$C = 0.265571$

Definitions.

$C - \frac{A \cdot B}{A + B} = 0$

$C - \frac{1}{n_1 + n_2} = 0$

$n_1 = 1.28863$

$n_2 = 2.47685$

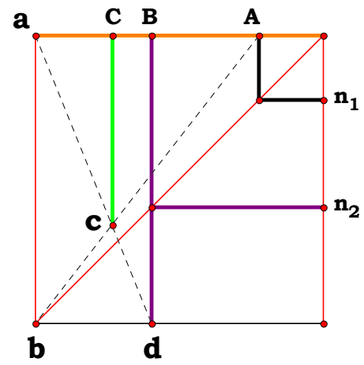
$A = 0.77602$

$B = 0.40374$

$C = 0.26557$

$\frac{A \cdot B}{A+B} - C = 0.00000$

$\frac{1}{n_1+n_2} - C = 0.00000$



$n_1 = 1.28863$

$n_2 = 2.47685$

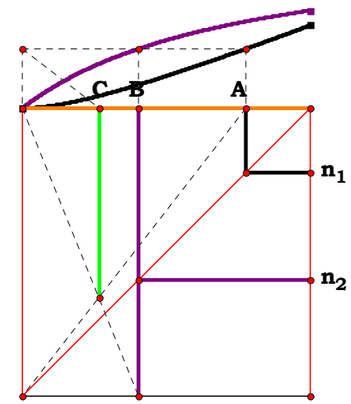
$A = 0.77602$

$B = 0.40374$

$C = 0.26557$

$\frac{A \cdot B}{A+B} - C = 0.00000$

$\frac{1}{n_1+n_2} - C = 0.00000$



1CST2R1

Given. $A := 2.70683$ $B := 3.68191$

$C := 5.30802$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$ad := \frac{A \cdot B}{A + B}$ $D := \frac{ad \cdot C}{ad + C}$

$D = 1.20565$

Definitions.

$D - \frac{A \cdot B \cdot C}{A \cdot B + A \cdot C + B \cdot C} = 0$

$D - \frac{1}{n_1 + n_2 + n_3} = 0$

$n_1 = 2.59009$

$n_2 = 1.20668$

$n_3 = 1.93491$

$A = 0.38609$

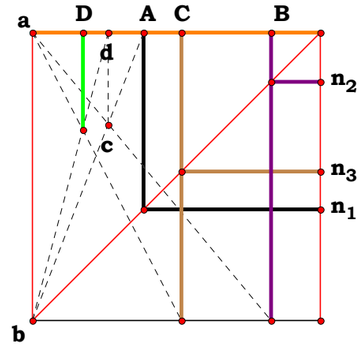
$B = 0.82872$

$C = 0.51682$

$D = 0.17447$

$\frac{A \cdot B \cdot C}{A \cdot B + A \cdot C + B \cdot C} - D = 0.00000$

$\frac{1}{n_1 + n_2 + n_3} - D = 0.00000$



$n_1 = 2.59009$

$n_2 = 1.20668$

$n_3 = 1.93491$

$A = 0.38609$

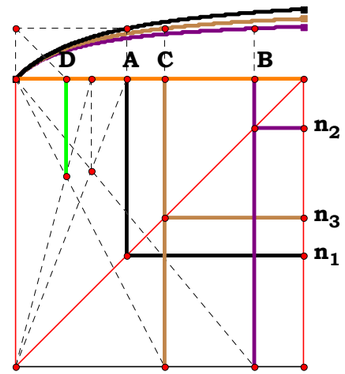
$B = 0.82872$

$C = 0.51682$

$D = 0.17447$

$\frac{A \cdot B \cdot C}{A \cdot B + A \cdot C + B \cdot C} - D = 0.00000$

$\frac{1}{n_1 + n_2 + n_3} - D = 0.00000$



1CST2R2

Given. $A := .90308$ $B := .62280$

$C := .30796$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$ae := \frac{A \cdot B}{A + B}$ $ac := \frac{ae \cdot C}{ae + C}$

$cd := \frac{ac}{C}$ $D := \frac{ae}{1 - cd}$

$D = 0.809778$

Definitions.

$$D - \frac{A \cdot B \cdot (A \cdot B + A \cdot C + B \cdot C)}{C \cdot (A + B)^2} = 0$$

$$D - \frac{(n_1 + n_2 + n_3)}{(n_1 + n_2)^2} = 0$$

$n_1 = 1.10732$

$n_2 = 1.60564$

$n_3 = 3.24717$

$A = 0.90308$

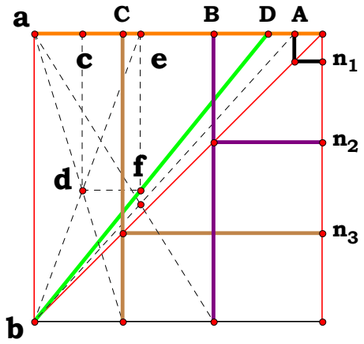
$B = 0.62280$

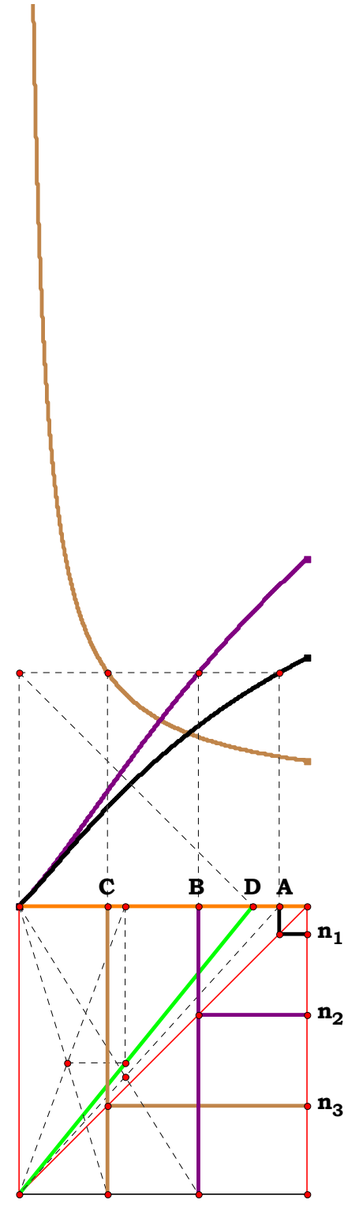
$C = 0.30796$

$D = 0.80978$

$\frac{A \cdot B \cdot (A \cdot B + A \cdot C + B \cdot C)}{C \cdot (A + B)^2} - D = 0.00000$

$\frac{n_1 + n_2 + n_3}{(n_1 + n_2)^2} - D = 0.00000$





$n_1 = 1.10732$

$n_2 = 1.60564$

$n_3 = 3.24717$

$A = 0.90308$

$B = 0.62280$

$C = 0.30796$

$D = 0.80978$

$\frac{A \cdot B \cdot (A \cdot B + A \cdot C + B \cdot C)}{C \cdot (A + B)^2} - D = 0.00000$

$\frac{n_1 + n_2 + n_3}{(n_1 + n_2)^2} - D = 0.00000$

1CST2R3

Given. $A := .79355$ $B := .67976$ $C := .50576$ $D := .25826$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$ag := \frac{A \cdot B}{A + B}$ $ac := \frac{ag \cdot C}{ag + C}$

$cd := \frac{ac}{C}$ $R_1 := \frac{D}{1 - cd}$

$R_1 = 0.44522$

Definitions.

$R_1 - \frac{A \cdot D \cdot (B + C) + B \cdot C \cdot D}{C \cdot (A + B)} = 0$

$R_1 - \frac{n_1 + n_2 + n_3}{n_4 \cdot (n_1 + n_2)} = 0$

$n_1 = 1.26017$

$n_2 = 1.47111$

$n_3 = 1.97721$

$n_4 = 3.87203$

$A = 0.79355$

$B = 0.67976$

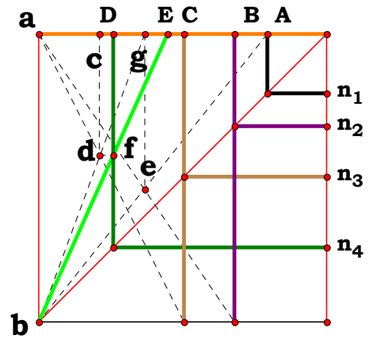
$C = 0.50576$

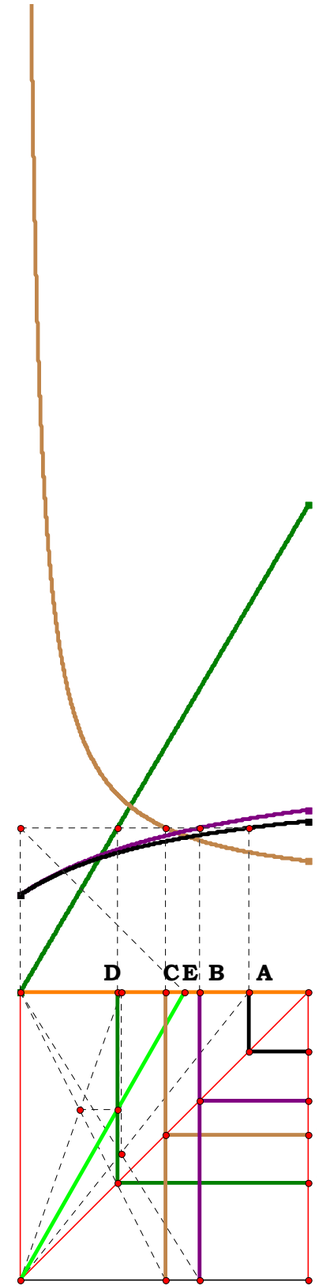
$D = 0.25826$

$E = 0.44522$

$\frac{A \cdot D \cdot (B+C) + B \cdot C \cdot D}{C \cdot (A+B)} - E = 0.00000$

$\frac{n_1 + n_2 + n_3}{n_4 \cdot (n_1 + n_2)} - E = 0.00000$





$n_1 = 1.26017$

$n_2 = 1.60564$

$n_3 = 1.97721$

$n_4 = 2.96626$

$A = 0.79355$

$B = 0.62280$

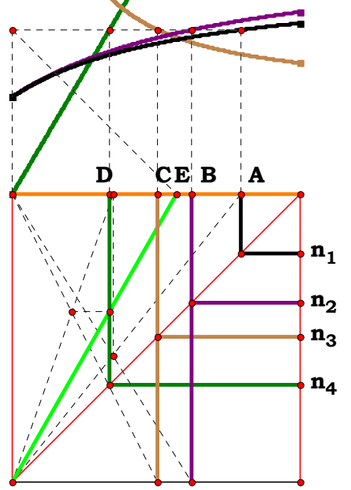
$C = 0.50576$

$D = 0.33713$

$E = 0.56972$

$\frac{A \cdot D \cdot (B+C) + B \cdot C \cdot D}{C \cdot (A+B)} - E = 0.00000$

$\frac{n_1 + n_2 + n_3}{n_4 \cdot (n_1 + n_2)} - E = 0.00000$



1CST2R4

Given. $A := .72783$ $B := .58337$

$C := .48261$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$ad := \frac{A \cdot B}{A + B}$ $ac := \frac{ad \cdot C}{ad + C}$

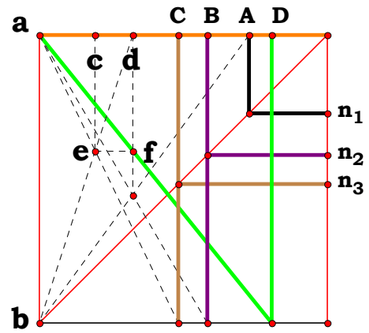
$ce := \frac{ac}{C}$ $D := \frac{ad}{ce}$

$D = 0.806431$

Definitions.

$$D - \frac{A \cdot B + C \cdot (A + B)}{A + B} = 0$$

$$D - \frac{n_1 + n_2 + n_3}{n_3 \cdot (n_1 + n_2)} = 0$$



$n_1 = 1.37395$

$n_2 = 1.71417$

$n_3 = 2.07206$

$A = 0.72783$

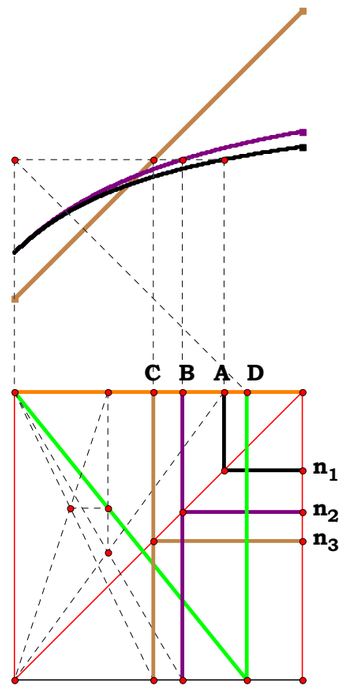
$B = 0.58337$

$C = 0.48261$

$D = 0.80643$

$\frac{A \cdot B + C \cdot (A + B)}{A + B} - D = 0.00000$

$\frac{n_1 + n_2 + n_3}{n_3 \cdot (n_1 + n_2)} - D = 0.00000$



$n_1 = 1.37395$

$n_2 = 1.71417$

$n_3 = 2.07206$

$A = 0.72783$

$B = 0.58337$

$C = 0.48261$

$D = 0.80643$

$\frac{A \cdot B + C \cdot (A + B)}{A + B} - D = 0.00000$

$\frac{n_1 + n_2 + n_3}{n_3 \cdot (n_1 + n_2)} - D = 0.00000$

1CST2R5

Given. $A := .63582$ $B := .47384$

$C := .36755$ $D := .75192$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$ad := \frac{A \cdot B}{A + B}$ $ac := \frac{ad \cdot C}{ad + C}$

$ce := \frac{ac}{C}$ $E := D \cdot (1 - ce)$

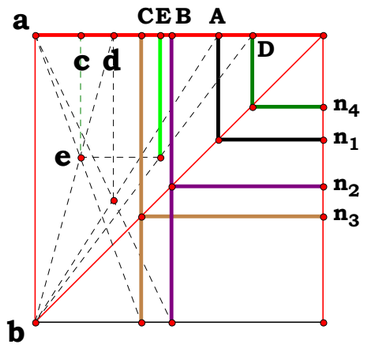
$E = 0.432465$

Definitions.

$$E - \frac{C \cdot D \cdot (A + B)}{A \cdot B + C \cdot (A + B)} = 0$$

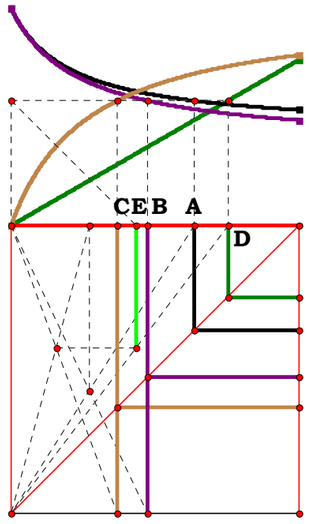
$$E - \frac{(n_1 + n_2)}{n_4 \cdot (n_1 + n_2 + n_3)} = 0$$

$n_1 = 1.57277$
$n_2 = 2.11042$
$n_3 = 2.72073$
$n_4 = 1.32993$
$A = 0.63582$
$B = 0.47384$
$C = 0.36755$
$D = 0.75192$
$E = 0.43246$



$\frac{C \cdot D \cdot (A+B)}{A \cdot B + C \cdot (A+B)} - E = 0.00000$

$\frac{n_1 + n_2}{n_4 \cdot (n_1 + n_2 + n_3)} - E = 0.00000$



$n_1 = 1.57277$
$n_2 = 2.11042$
$n_3 = 2.72073$
$n_4 = 1.32993$
$A = 0.63582$
$B = 0.47384$
$C = 0.36755$
$D = 0.75192$
$E = 0.43246$

$\frac{C \cdot D \cdot (A+B)}{A \cdot B + C \cdot (A+B)} - E = 0.00000$

$\frac{n_1 + n_2}{n_4 \cdot (n_1 + n_2 + n_3)} - E = 0.00000$

1CST2R6

Given. $A := 4.16164$ $B := 1.79591$

$C := 1.38971$ $D := 2.87533$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$af := \frac{A \cdot B}{A + B}$ $ac := \frac{af \cdot C}{af + C}$

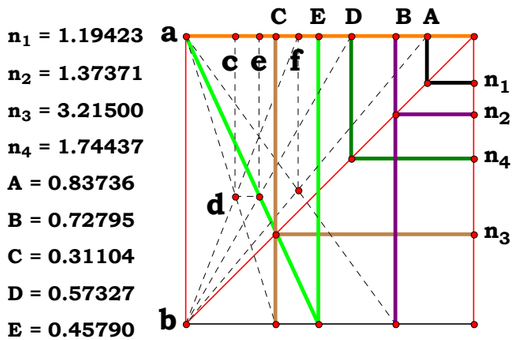
$cd := \frac{ac}{C}$ $ae := D \cdot (1 - cd)$

$E := \frac{ae}{cd}$ $E = 3.185154$

Definitions.

$E - \frac{C \cdot D \cdot (A + B)}{A \cdot B} = 0$

$E - \frac{n_1 + n_2}{n_3 \cdot n_4} = 0$



$n_1 = 1.19423$

$n_2 = 1.37371$

$n_3 = 3.21500$

$n_4 = 1.74437$

$A = 0.83736$

$B = 0.72795$

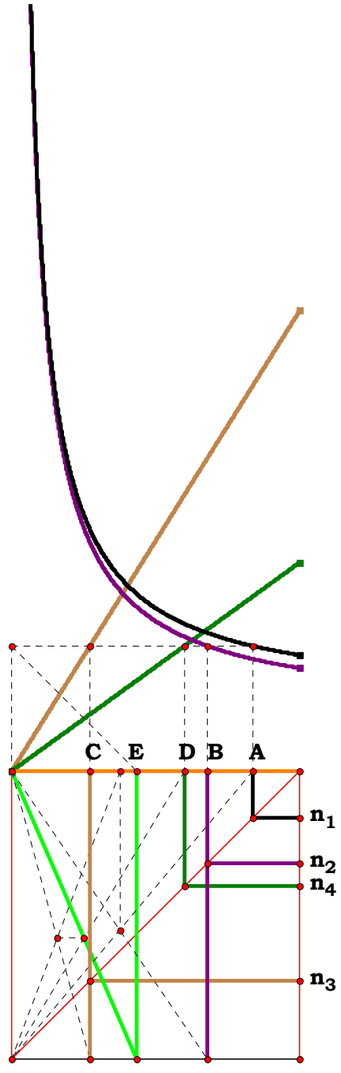
$C = 0.31104$

$D = 0.57327$

$E = 0.45790$

$\frac{C \cdot D \cdot (A+B)}{A \cdot B} - E = 0.00000$

$\frac{n_1 + n_2}{n_3 \cdot n_4} - E = 0.00000$



$n_1 = 1.19423$

$n_2 = 1.47111$

$n_3 = 3.68175$

$n_4 = 1.66788$

$A = 0.83736$

$B = 0.67976$

$C = 0.27161$

$D = 0.59956$

$E = 0.43404$

$\frac{C \cdot D \cdot (A+B)}{A \cdot B} - E = 0.00000$

$\frac{n_1 + n_2}{n_3 \cdot n_4} - E = 0.00000$

1CST2R7

Given. $A := 3.19415$ $B := 1.77326$

$C := 2.52252$ $D := 1.53229$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$$

Descriptions.

$$ae := \frac{A \cdot B}{A + B} \qquad ac := \frac{ae \cdot C}{ae + C}$$

$$cd := \frac{ac}{C} \qquad E := \frac{D}{cd}$$

$E = 4.92212$

Definitions.

$$E - \frac{D \cdot [A \cdot B + C \cdot (A + B)]}{A \cdot B} = 0$$

$$E - \frac{n_1 + n_2 + n_3}{n_3 \cdot n_4} = 0$$

$n_1 = 1.26716$

$n_2 = 1.68881$

$n_3 = 2.13955$

$n_4 = 3.65018$

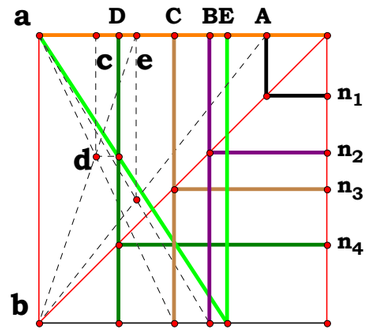
$A = 0.78916$

$B = 0.59213$

$C = 0.46739$

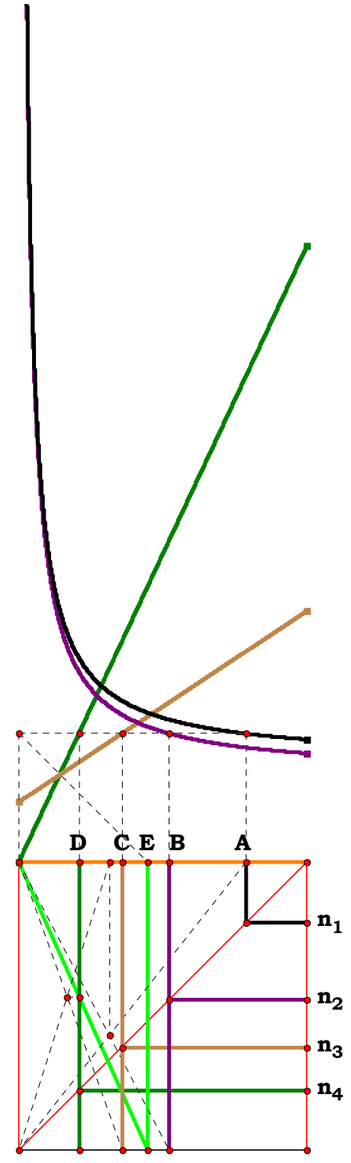
$D = 0.27396$

$E = 0.65246$



$\frac{D \cdot (A \cdot B + C \cdot (A + B))}{A \cdot B} - E = 0.00000$

$\frac{n_1 + n_2 + n_3}{n_3 \cdot n_4} - E = 0.00000$



$n_1 = 1.26716$

$n_2 = 1.91558$

$n_3 = 2.79443$

$n_4 = 4.80216$

$A = 0.78916$

$B = 0.52203$

$C = 0.35786$

$D = 0.20824$

$E = 0.44542$

$\frac{D \cdot (A \cdot B + C \cdot (A + B))}{A \cdot B} - E = 0.00000$

$\frac{n_1 + n_2 + n_3}{n_3 \cdot n_4} - E = 0.00000$

1CST3R0

Given. $A := .79793$ $B := .61842$

$C := .44824$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$de := \frac{B}{A}$ $cD := 1 - de$

$DC := C \cdot cD$ $D := C - DC$

$D = 0.3474$

Definitions.

$D - \frac{B \cdot C}{A} = 0$

$D - \frac{n_1}{n_2 \cdot n_3} = 0$

$n_1 = 1.25325$

$n_2 = 1.61702$

$n_3 = 2.23096$

$A = 0.79793$

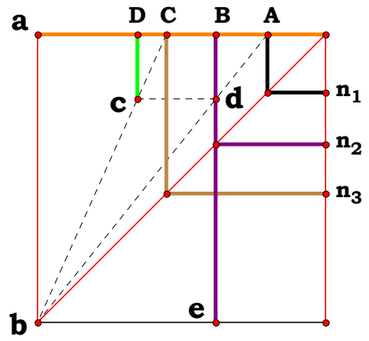
$B = 0.61842$

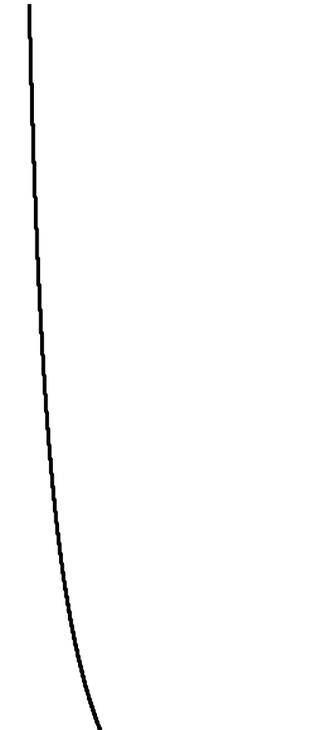
$C = 0.44824$

$D = 0.34740$

$\frac{B \cdot C}{A} - D = 0.00000$

$\frac{n_1}{n_2 \cdot n_3} - D = 0.00000$





$n_1 = 1.25325$

$n_2 = 1.61702$

$n_3 = 2.23096$

$A = 0.79793$

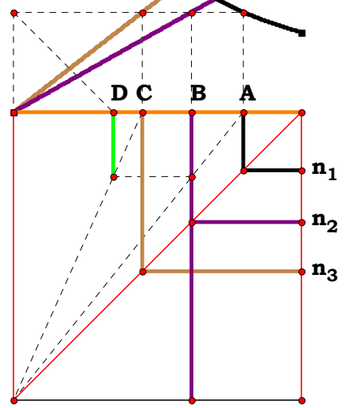
$B = 0.61842$

$C = 0.44824$

$D = 0.34740$

$\frac{B \cdot C}{A} - D = 0.00000$

$\frac{n_1}{n_2 \cdot n_3} - D = 0.00000$



1CST3R1

Given. $A := .81983$ $B := .59213$

$C := .41609$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$ad := B \cdot \frac{C}{A}$ $cD := \frac{A - B}{A}$

$dD := ad \cdot cD$ $D := ad - dD$

$D = 0.217057$

Definitions.

$D - \frac{B^2 \cdot C}{A^2} = 0$

$D - \frac{n_1^2}{n_2^2 \cdot n_3} = 0$

$n_1 = 1.21976$

$n_2 = 1.68881$

$n_3 = 2.40334$

$A = 0.81983$

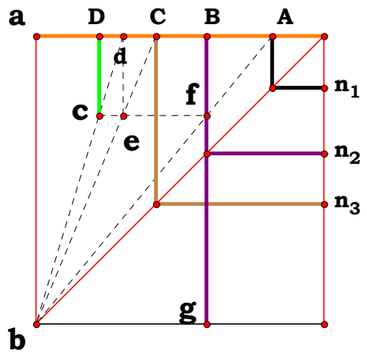
$B = 0.59213$

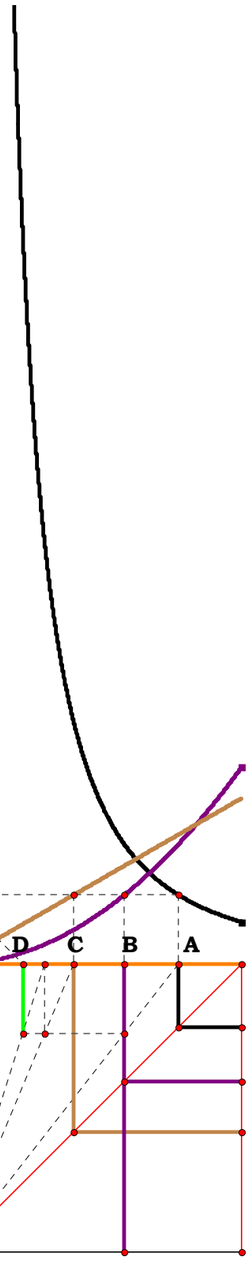
$C = 0.41609$

$D = 0.21706$

$\frac{B^2 \cdot C}{A^2} - D = 0.00000$

$\frac{n_1^2}{n_2^2 \cdot n_3} - D = 0.00000$





$n_1 = 1.28139$

$n_2 = 1.68881$

$n_3 = 2.40334$

$A = 0.78040$

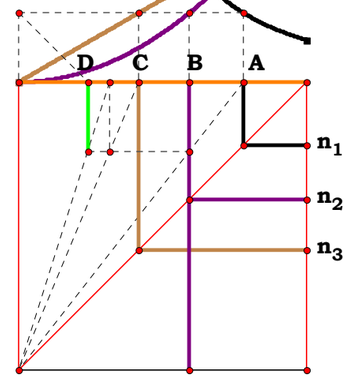
$B = 0.59213$

$C = 0.41609$

$D = 0.23955$

$\frac{B^2 \cdot C}{A^2} - D = 0.00000$

$\frac{n_1^2}{n_2^2 \cdot n_3} - D = 0.00000$



1CST3R2

Given. $A := .83298$ $B := .63157$

$C := .36918$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$ad := \frac{B^2 \cdot C}{A^2}$ $cD := \frac{A - B}{A}$

$dr := ad \cdot cD$ $D := ad - dr$

$D = 0.160916$

Definitions.

$D - \frac{B^3 \cdot C}{A^3} = 0$

$D - \frac{n_1^3}{n_2^3 \cdot n_3} = 0$

$n_1 = 1.20051$

$n_2 = 1.58337$

$n_3 = 2.70870$

$A = 0.83298$

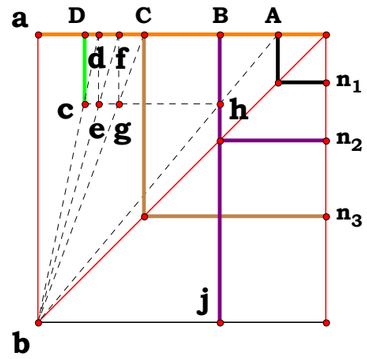
$B = 0.63157$

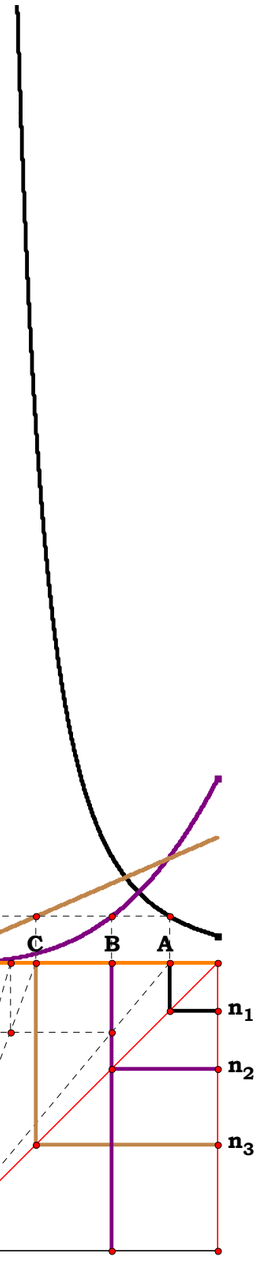
$C = 0.36918$

$D = 0.16091$

$\frac{B^3 \cdot C}{A^3} - D = 0.00000$

$\frac{n_1^3}{n_2^3 \cdot n_3} - D = 0.00000$





$n_1 = 1.20051$

$n_2 = 1.58337$

$n_3 = 2.70870$

$A = 0.83298$

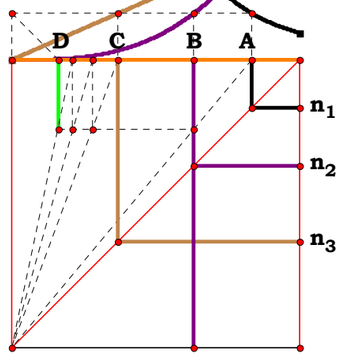
$B = 0.63157$

$C = 0.36918$

$D = 0.16091$

$\frac{B^3 \cdot C}{A^3} - D = 0.00000$

$\frac{n_1^3}{n_2^3 \cdot n_3} - D = 0.00000$



1CST3R3

Given. $A := .72783$ $B := .55708$

$C := .35545$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$ad := \frac{B^3 \cdot C}{A^3}$ $cd := \frac{A - B}{A}$ $D := \frac{ad}{cd}$

$D = 0.679377$

Definitions.

$$D - \frac{B^3 \cdot C}{A^2 \cdot (A - B)} = 0$$

$$D - \frac{n_1^3}{n_2^2 \cdot n_3 \cdot (n_2 - n_1)} = 0$$

$n_1 = 1.37395$

$n_2 = 1.79506$

$n_3 = 2.81332$

$A = 0.72783$

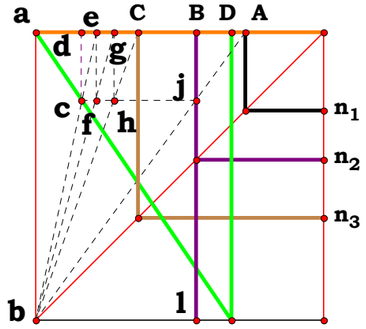
$B = 0.55708$

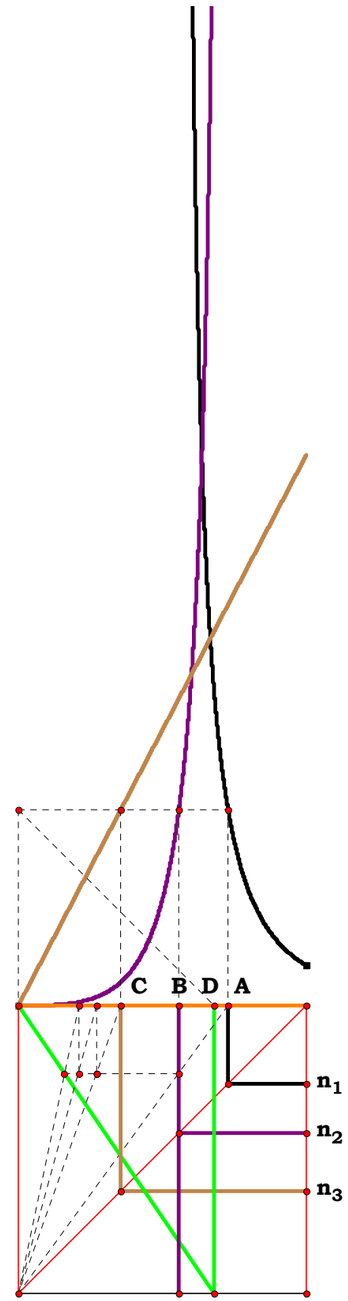
$C = 0.35545$

$D = 0.67943$

$\frac{B^3 \cdot C}{A^3 - A^2 \cdot B} - D = 0.00000$

$\frac{n_1^3}{n_2^2 \cdot n_3 \cdot (n_2 - n_1)} - D = 0.00000$





$n_1 = 1.37395$

$n_2 = 1.79506$

$n_3 = 2.81332$

$A = 0.72783$

$B = 0.55708$

$C = 0.35545$

$D = 0.67943$

$\frac{B^3 \cdot C}{A^3 - A^2 \cdot B} - D = 0.00000$

$\frac{n_1^3}{n_2^2 \cdot n_3 \cdot (n_2 - n_1)} - D = 0.00000$

1CST3R4

Given. $A := .79793$ $B := .58337$

$C := .26486$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$cd := \frac{A - B}{A}$ $ac := \frac{B^2 \cdot C}{A^2}$ $D := \frac{ac}{cd}$

$D = 0.526491$

Definitions.

$$D - \frac{B^2 \cdot C}{A \cdot (A - B)} = 0$$

$$D - \frac{{n_1}^2}{n_3 \cdot \left({n_2}^2 - n_1 \cdot n_2 \right)} = 0$$

$n_1 = 1.25325$

$n_2 = 1.71417$

$n_3 = 3.77562$

$A = 0.79793$

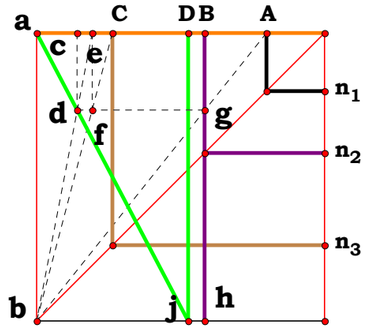
$B = 0.58337$

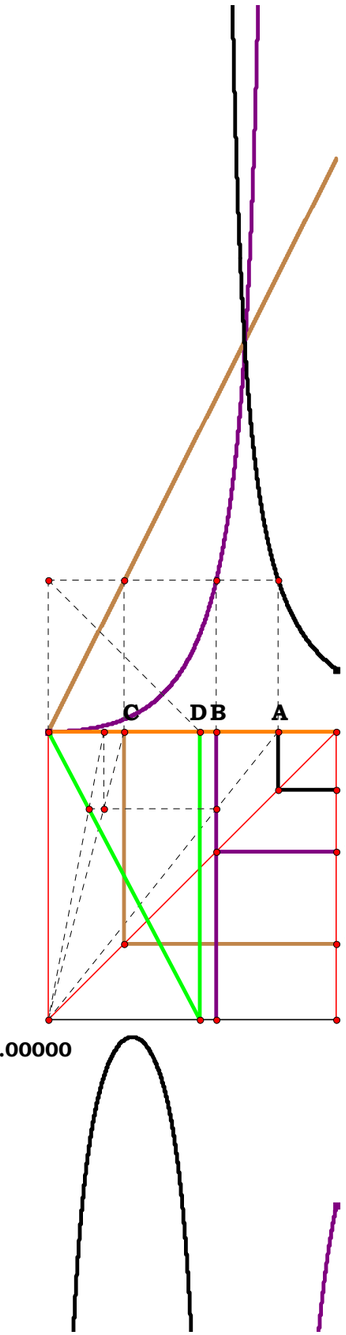
$C = 0.26486$

$D = 0.52650$

$\frac{B^2 \cdot C}{A^2 - A \cdot B} - D = 0.00000$

$\frac{{n_1}^2}{n_3 \cdot (n_2^2 - n_1 \cdot n_2)} - D = 0.00000$





$n_1 = 1.25325$

$n_2 = 1.71417$

$n_3 = 3.77562$

$A = 0.79793$

$B = 0.58337$

$C = 0.26486$

$D = 0.52650$

$\frac{B^2 \cdot C}{A^2 - A \cdot B} - D = 0.00000$

$\frac{{n_1}^2}{n_3 \cdot (n_2^2 - n_1 \cdot n_2)} - D = 0.00000$

1CST3R5

Given. $A := .65334$ $B := .40812$

$C := .19260$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$ac := \frac{B \cdot C}{A}$ $cd := \frac{A - B}{A}$ $R_1 := \frac{ac}{cd}$

$R_1 = 0.320544$

Definitions.

$R_1 - \frac{B \cdot C}{A - B} = 0$

$R_1 - \frac{n_1}{n_3 \cdot (n_2 - n_1)} = 0$

$n_1 = 1.53059$

$n_2 = 2.45026$

$n_3 = 5.19221$

$A = 0.65334$

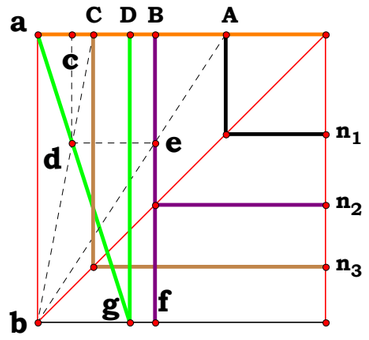
$B = 0.40812$

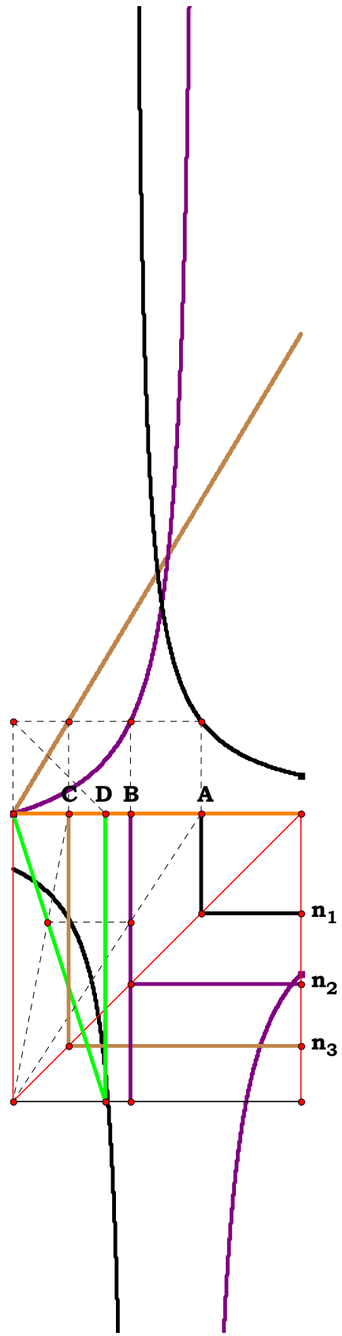
$C = 0.19260$

$D = 0.32053$

$\frac{B \cdot C}{A-B} - D = 0.00000$

$\frac{n_1}{n_3 \cdot (n_2 - n_1)} - D = 0.00000$





$n_1 = 1.53059$

$n_2 = 2.45026$

$n_3 = 5.19221$

$A = 0.65334$

$B = 0.40812$

$C = 0.19260$

$D = 0.32053$

$\frac{B \cdot C}{A-B} - D = 0.00000$

$\frac{n_1}{n_3 \cdot (n_2 - n_1)} - D = 0.00000$

1CST3R6

Given. $A := .86365$

$B := .53080$ $C := .49964$

$D := .38562$ $E := .15822$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$ $n_5 := \frac{1}{E}$

Descriptions.

$gB := 1 - \frac{B}{A}$ $cC := C \cdot gB$

$ac := C - cC$ $bh := \frac{ac}{gB}$

$bf := \frac{bh \cdot D}{bh + D}$ $ef := \frac{bf}{D}$ $F := \frac{E}{ef}$

$F = 0.234794$

Definitions.

$$F - \frac{E \cdot [A \cdot D + B \cdot (C - D)]}{B \cdot C} = 0$$

$$F - \frac{n_1 \cdot n_4 - n_1 \cdot n_3 + n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} = 0$$

$n_1 = 1.15788$

$n_2 = 1.88396$

$n_3 = 2.00146$

$n_4 = 2.59321$

$n_5 = 6.32050$

$A = 0.86365$

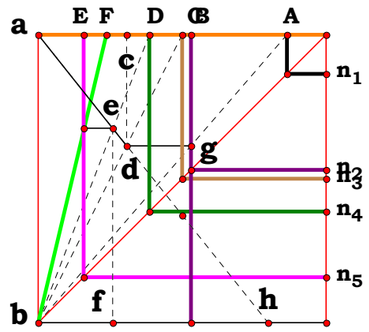
$B = 0.53080$

$C = 0.49964$

$D = 0.38562$

$E = 0.15822$

$F = 0.23479$



$\frac{E \cdot (A \cdot D + B \cdot (C - D))}{B \cdot C} - F = 0.00000$

$\frac{(n_1 \cdot n_4 - n_1 \cdot n_3) + n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} - F = 0.00000$

$n_1 = 1.15788$

$n_2 = 1.61702$

$n_3 = 2.00146$

$n_4 = 2.62302$

$n_5 = 4.94981$

$A = 0.86365$

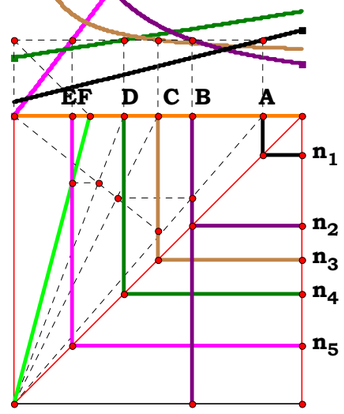
$B = 0.61842$

$C = 0.49964$

$D = 0.38124$

$E = 0.20203$

$F = 0.26316$



$\frac{E \cdot (A \cdot D + B \cdot (C - D))}{B \cdot C} - F = 0.00000$

$\frac{(n_1 \cdot n_4 - n_1 \cdot n_3) + n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} - F = 0.00000$

1CST4R0

Given. $A := .83736$

$B := .20658$ $C := .40485$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$dB := \frac{A - B}{A}$ $D := C \cdot dB$

$D = 0.304972$

Definitions.

$D - \frac{C \cdot (A - B)}{A} = 0$

$D - \frac{n_2 - n_1}{n_2 \cdot n_3} = 0$

$n_1 = 1.19423$

$n_2 = 4.84069$

$n_3 = 2.47004$

$A = 0.83736$

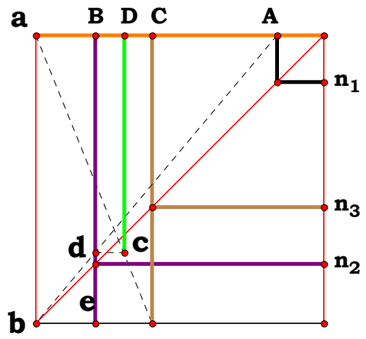
$B = 0.20658$

$C = 0.40485$

$D = 0.30497$

$\frac{C \cdot (A-B)}{A} - D = 0.00000$

$\frac{n_2 - n_1}{n_2 \cdot n_3} - D = 0.00000$



$n_1 = 1.19423$

$n_2 = 4.84069$

$n_3 = 2.47004$

$A = 0.83736$

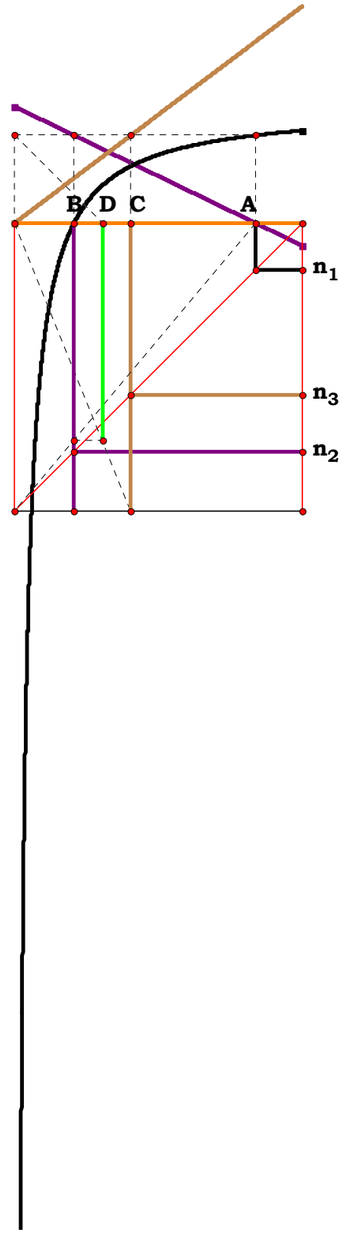
$B = 0.20658$

$C = 0.40485$

$D = 0.30497$

$\frac{C \cdot (A-B)}{A} - D = 0.00000$

$\frac{n_2 - n_1}{n_2 \cdot n_3} - D = 0.00000$



1CST4R1

Given. $A := .75850$

$B := .52643$ $C := .87116$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$cd := \frac{A - B}{A}$ $ac := \frac{C \cdot (A - B)}{A}$

$D := \frac{ac}{1 - cd}$

$D = 0.38404$

Definitions.

$D - \frac{C \cdot (A - B)}{B} = 0$

$D - \frac{n_2 - n_1}{n_1 \cdot n_3} = 0$

$n_1 = 1.31840$

$n_2 = 1.89959$

$n_3 = 1.14789$

$A = 0.75850$

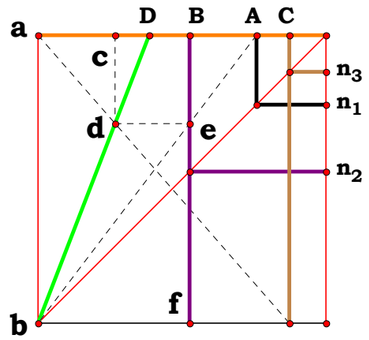
$B = 0.52643$

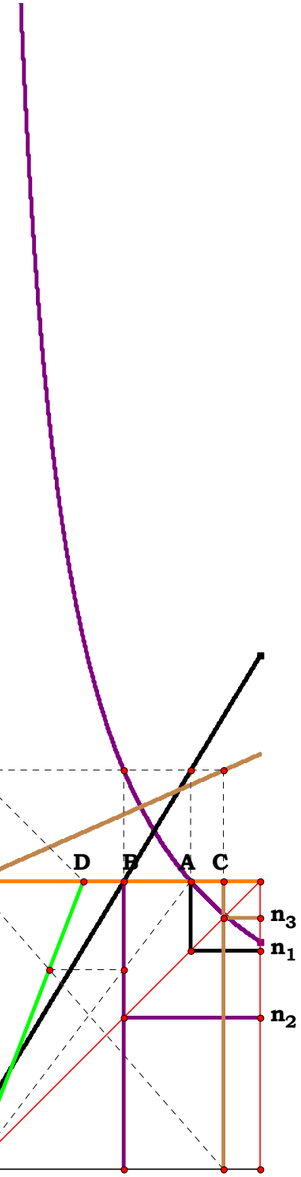
$C = 0.87116$

$D = 0.38403$

$\frac{C \cdot (A-B)}{B} - D = 0.00000$

$\frac{n_2 - n_1}{n_1 \cdot n_3} - D = 0.00000$





$n_1 = 1.31840$

$n_2 = 1.89959$

$n_3 = 1.14789$

$A = 0.75850$

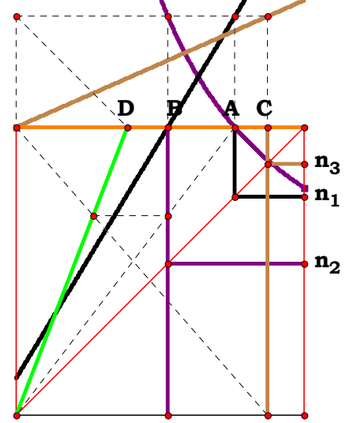
$B = 0.52643$

$C = 0.87116$

$D = 0.38403$

$\frac{C \cdot (A-B)}{B} - D = 0.00000$

$\frac{n_2 - n_1}{n_1 \cdot n_3} - D = 0.00000$



1CST4R2

Given. $A := .89431$

$B := .63157$ $C := .78412$

$D := .52038$ $E := .32894$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$gB := 1 - \frac{B}{A} \qquad ac := C \cdot gB$$

$$cd := \frac{D - ac}{D} \qquad bf := E \cdot cd \qquad F := \frac{bf}{1 - cd}$$

$F = 0.414108$

Definitions.

$$F - \frac{E \cdot [A \cdot (D - C) + B \cdot C]}{C \cdot (A - B)} = 0$$

$$F - \frac{n_1 \cdot n_4 + n_2 \cdot n_3 - n_2 \cdot n_4}{n_4 \cdot n_5 \cdot (n_2 - n_1)} = 0$$

$n_1 = 1.11817$

$n_2 = 1.58337$

$n_3 = 1.27531$

$n_4 = 1.92169$

$n_5 = 3.04011$

$A = 0.89431$

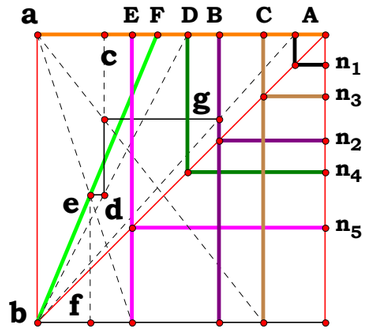
$B = 0.63157$

$C = 0.78412$

$D = 0.52038$

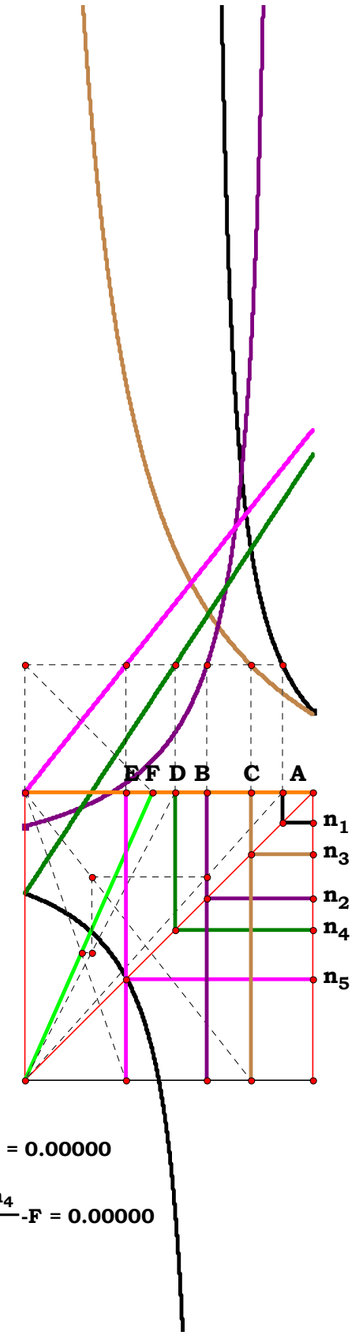
$E = 0.32894$

$F = 0.41407$



$$\frac{E \cdot (A \cdot (D-C) + B \cdot C)}{C \cdot (A-B)} - F = 0.00000$$

$$\frac{(n_1 \cdot n_4 + n_2 \cdot n_3) - n_2 \cdot n_4}{n_4 \cdot n_5 \cdot (n_2 - n_1)} - F = 0.00000$$



$n_1 = 1.11817$

$n_2 = 1.58337$

$n_3 = 1.27531$

$n_4 = 1.92169$

$n_5 = 2.85029$

$A = 0.89431$

$B = 0.63157$

$C = 0.78412$

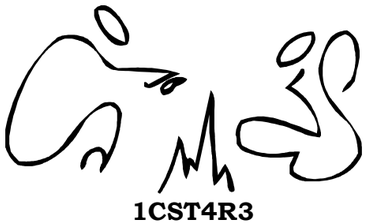
$D = 0.52038$

$E = 0.35084$

$F = 0.44165$

$$\frac{E \cdot (A \cdot (D-C) + B \cdot C)}{C \cdot (A-B)} - F = 0.00000$$

$$\frac{(n_1 \cdot n_4 + n_2 \cdot n_3) - n_2 \cdot n_4}{n_4 \cdot n_5 \cdot (n_2 - n_1)} - F = 0.00000$$



1CST4R3

Given. $A := .84328$

$B := .66713$ $C := .60519$

$D := .36488$ $E := .26317$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$ $n_5 := \frac{1}{E}$

Descriptions.

$cd := \frac{A - B}{A}$ $ac := C \cdot cd$

$ce := \frac{D - ac}{D}$ $F := \frac{E}{1 - ce}$

$F = 0.759598$

Definitions.

$$F - \frac{A \cdot D \cdot E}{A \cdot C - B \cdot C} = 0$$

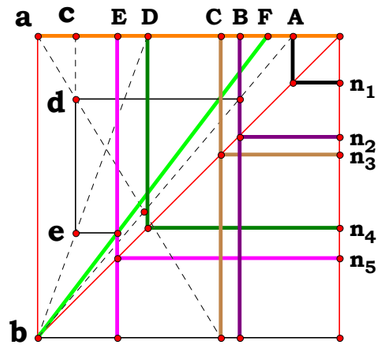
$$F - \frac{n_2 \cdot n_3}{n_4 \cdot n_5 \cdot (n_2 - n_1)} = 0$$

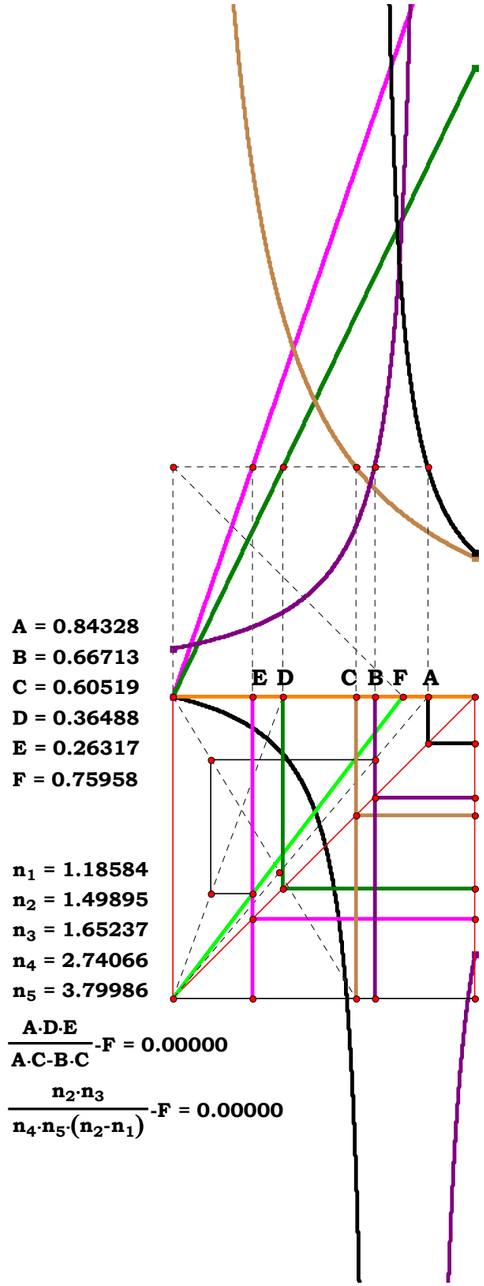
A = 0.84328
B = 0.66713
C = 0.60519
D = 0.36488
E = 0.26317
F = 0.75958

n_1 = 1.18584
n_2 = 1.49895
n_3 = 1.65237
n_4 = 2.74066
n_5 = 3.79986

$\frac{A \cdot D \cdot E}{A \cdot C - B \cdot C} - F = 0.00000$

$\frac{n_2 \cdot n_3}{n_4 \cdot n_5 \cdot (n_2 - n_1)} - F = 0.00000$



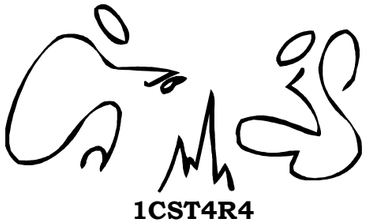


A = 0.84328
B = 0.66713
C = 0.60519
D = 0.36488
E = 0.26317
F = 0.75958

n_1 = 1.18584
n_2 = 1.49895
n_3 = 1.65237
n_4 = 2.74066
n_5 = 3.79986

$\frac{A \cdot D \cdot E}{A \cdot C - B \cdot C} - F = 0.00000$

$\frac{n_2 \cdot n_3}{n_4 \cdot n_5 \cdot (n_2 - n_1)} - F = 0.00000$



1CST4R4

Given. $A := .68027$

$B := .18645$ $C := .53414$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$cd := \frac{C}{A + C}$ $D := \frac{B}{cd}$

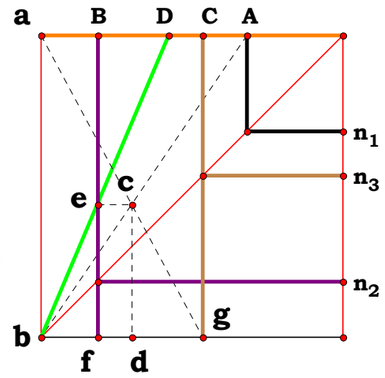
$D = 0.423909$

Definitions.

$D - \frac{B \cdot (A + C)}{C} = 0$

$D - \frac{n_1 + n_3}{n_1 \cdot n_2} = 0$

A = 0.68027
B = 0.18645
C = 0.53414
D = 0.42391
n_1 = 1.47001
n_2 = 5.36334
n_3 = 1.87218
$\frac{B \cdot (A+C)}{C} - D = 0.00000$
$\frac{n_1 + n_3}{n_1 \cdot n_2} - D = 0.00000$



A = 0.68027
B = 0.18645
C = 0.53414
D = 0.42391
n_1 = 1.47001
n_2 = 5.36334
n_3 = 1.87218
$\frac{B \cdot (A+C)}{C} - D = 0.00000$
$\frac{n_1 + n_3}{n_1 \cdot n_2} - D = 0.00000$

1CST4R5

Given. $A := .86000$

$B := .62533$ $C := .52996$

$D := .43175$ $E := .25063$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$ $n_5 := \frac{1}{E}$

Descriptions.

$cd := 1 - \frac{B}{A}$ $ac := C \cdot cd$

$ce := \frac{D - ac}{D}$ $F := \frac{E}{ce}$

$F = 0.376854$

Definitions.

$$F - \frac{A \cdot D \cdot E}{A \cdot D - C \cdot (A - B)} = 0$$

$$F - \frac{n_2 \cdot n_3}{n_5 \cdot \left(n_1 \cdot n_4 + n_2 \cdot n_3 - n_2 \cdot n_4\right)} = 0$$

Unit = 1.00000

A = 0.86000

B = 0.62533

C = 0.52996

D = 0.43175

E = 0.25063

F = 0.37685

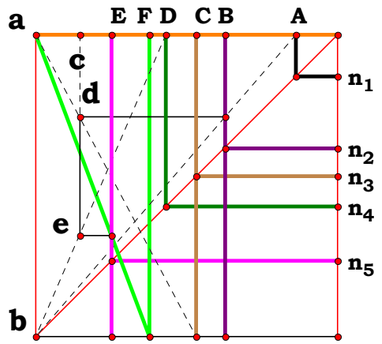
n_1 = 1.16279

n_2 = 1.59915

n_3 = 1.88695

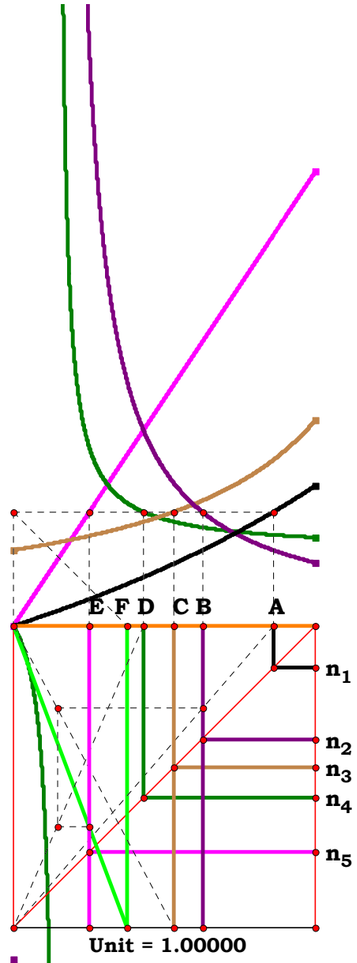
n_4 = 2.31614

n_5 = 3.98998



$$\frac{A \cdot D \cdot E}{A \cdot D - C \cdot (A - B)} - F = 0.00000$$

$$\frac{n_2 \cdot n_3}{n_5 \cdot \left(\left(n_1 \cdot n_4 + n_2 \cdot n_3\right) - n_2 \cdot n_4\right)} - F = 0.00000$$



A = 0.86000

B = 0.62533

C = 0.52996

D = 0.43175

E = 0.25063

F = 0.37685

n_1 = 1.16279

n_2 = 1.59915

n_3 = 1.88695

n_4 = 2.31614

n_5 = 3.98998

Unit = 1.00000

$$\frac{A \cdot D \cdot E}{A \cdot D - C \cdot (A - B)} - F = 0.00000$$

$$\frac{n_2 \cdot n_3}{n_5 \cdot \left(\left(n_1 \cdot n_4 + n_2 \cdot n_3\right) - n_2 \cdot n_4\right)} - F = 0.00000$$

1CST4R6

Given. $A := .59249$ $B := .49994$

$C := .30424$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

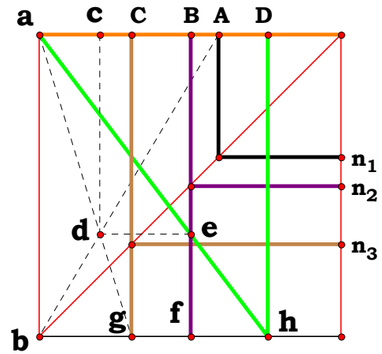
$cd := \frac{A}{A + C}$ $D := \frac{B}{cd}$

$D = 0.756656$

Definitions.

$D - \frac{B \cdot (A + C)}{A} = 0$

$D - \frac{n_1 + n_3}{n_2 \cdot n_3} = 0$



Unit = 1.00000

A = 0.59249

B = 0.49994

C = 0.30424

D = 0.75666

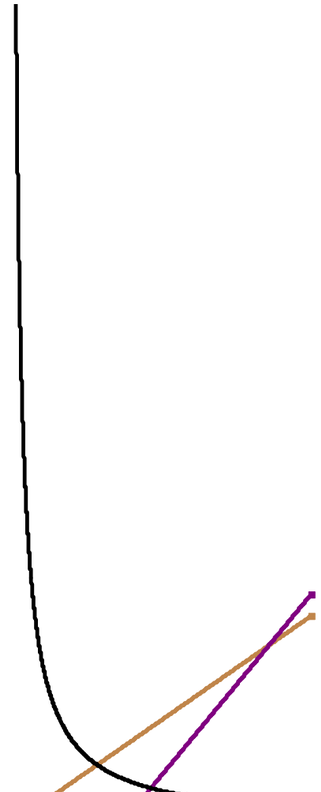
n_1 = 1.68779

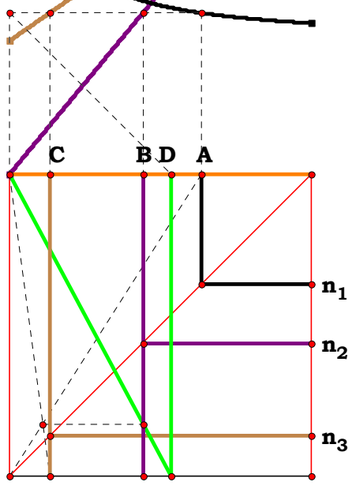
n_2 = 2.00025

n_3 = 3.28683

$\frac{B \cdot (A+C)}{A}$-D = 0.00000

$\frac{n_1+n_3}{n_2 \cdot n_3}$-D = 0.00000





Unit = 1.00000

A = 0.63429

B = 0.44142

C = 0.13287

D = 0.53389

n_1 = 1.57657

n_2 = 2.26541

n_3 = 7.52607

$\frac{B \cdot (A+C)}{A}$-D = 0.00000

$\frac{n_1+n_3}{n_2 \cdot n_3}$-D = 0.00000

1CST5R0

Given. $A := .86000$ $B := .64623$ $C := .52578$ $D := .39831$ $E := .58919$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$BJ := \frac{A \cdot B}{A + B} \qquad HJ := \frac{BJ}{A}$$

$$BG := C \cdot HJ \qquad FG := \frac{BG}{D}$$

$$BD := E \cdot FG \qquad F := \frac{BD}{1 - FG}$$

$F = 0.769461$

Definitions.

$$F - \frac{B \cdot C \cdot E}{A \cdot D - B \cdot (C - D)} = 0$$

$$F - \frac{n_1 \cdot n_4}{n_5 \cdot \left(n_1 \cdot n_3 - n_1 \cdot n_4 + n_2 \cdot n_3\right)} = 0$$

Unit = 1.00000

A = 0.86000

B = 0.64623

C = 0.52578

D = 0.39831

E = 0.58919

F = 0.76944

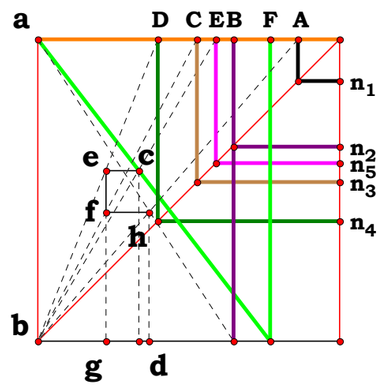
$n_1 = 1.16279$

$n_2 = 1.54743$

$n_3 = 1.90195$

$n_4 = 2.51058$

$n_5 = 1.69723$



$$\frac{B \cdot C \cdot E}{A \cdot D - B \cdot (C - D)} - F = 0.00000$$

$$\frac{n_1 \cdot n_4}{n_5 \cdot \left(\left(n_1 \cdot n_3 - n_1 \cdot n_4\right) + n_2 \cdot n_3\right)} - F = 0.00000$$

Unit = 1.00000

A = 0.86000

B = 0.64623

C = 0.52578

D = 0.39831

E = 0.58919

F = 0.76944

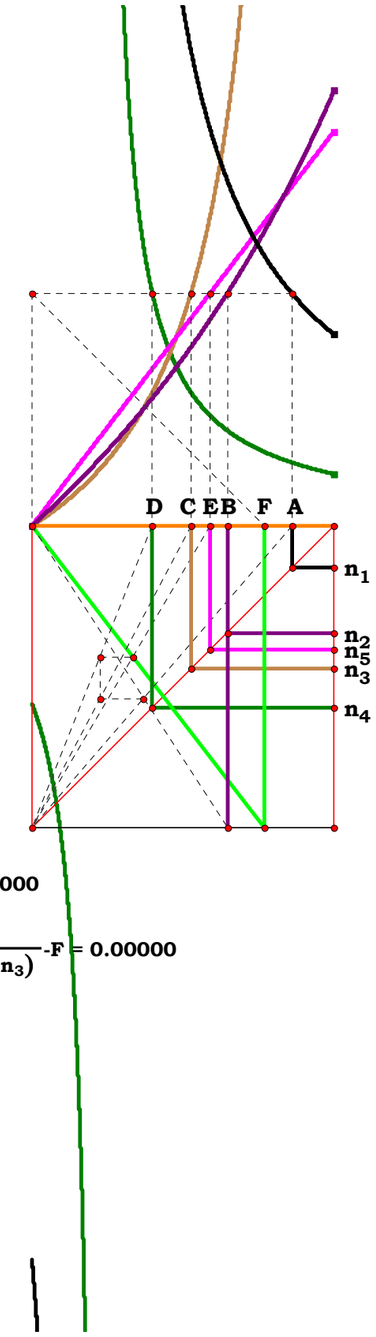
$n_1 = 1.16279$

$n_2 = 1.54743$

$n_3 = 1.90195$

$n_4 = 2.51058$

$n_5 = 1.69723$



$$\frac{B \cdot C \cdot E}{A \cdot D - B \cdot (C - D)} - F = 0.00000$$

$$\frac{n_1 \cdot n_4}{n_5 \cdot \left(\left(n_1 \cdot n_3 - n_1 \cdot n_4\right) + n_2 \cdot n_3\right)} - F = 0.00000$$

1CST5R1

Given. $A := .8600$ $B := .61279$

$C := .47562$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

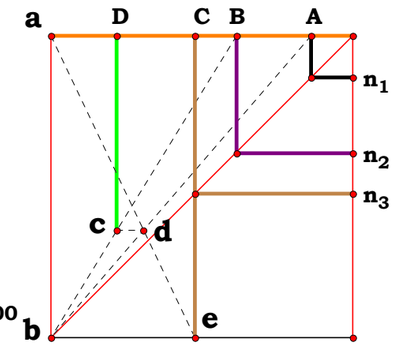
$cD := \frac{A}{A + C}$ $DB := B \cdot cD$

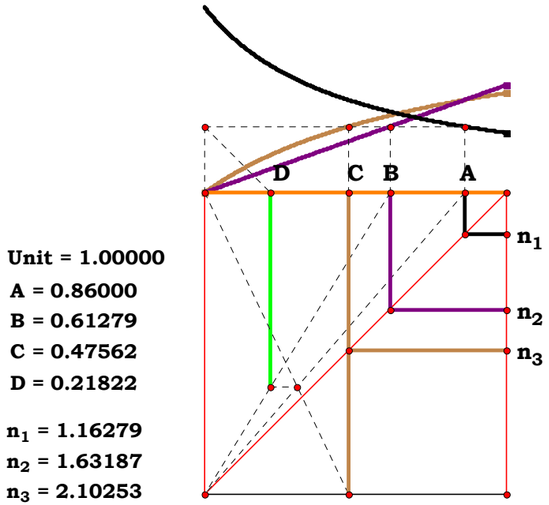
$D := B - DB$ $D = 0.218217$

Definitions.

$D - \frac{B \cdot C}{A + C} = 0$

$D - \frac{n_1}{n_2 \cdot (n_1 + n_3)} = 0$





1CST5R2

Given. $A := .86000$ $B := .58354$ $C := .36694$ $D := .47773$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$$

Descriptions.

$$bg := \frac{A \cdot C}{A + C} \qquad fg := \frac{bg}{A}$$

$$be := B \cdot fg \qquad ce := \frac{D - be}{D} \qquad R_1 := \frac{be}{ce}$$

$R_1 = 0.274966$

Definitions.

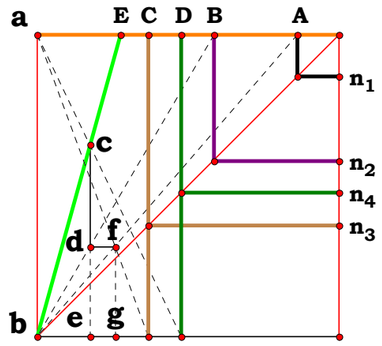
$$R_1 - \frac{B \cdot C \cdot D}{A \cdot D - C \cdot (B - D)} = 0$$

$$R_1 - \frac{n_1}{n_1 \cdot n_2 - n_1 \cdot n_4 + n_2 \cdot n_3} = 0$$

Unit = 1.00000

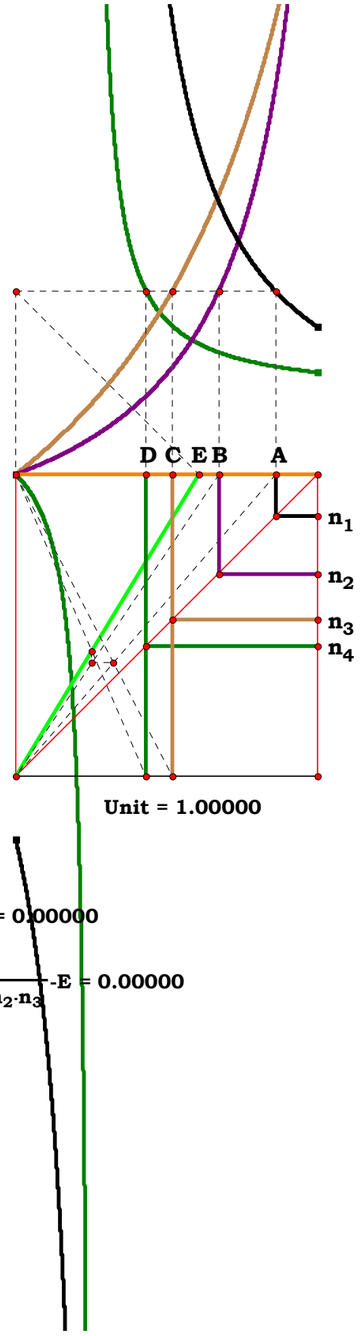
A = 0.86000
B = 0.58354
C = 0.36694
D = 0.47773
E = 0.27496

$n_1 = 1.16279$
$n_2 = 1.71369$
$n_3 = 2.72523$
$n_4 = 2.09323$



$$\frac{B \cdot C \cdot D}{A \cdot D - C \cdot (B - D)} - E = 0.00000$$

$$\frac{n_1}{(n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3} - E = 0.00000$$



A = 0.86000
B = 0.67131
C = 0.51742
D = 0.43175
E = 0.60629

$n_1 = 1.16279$
$n_2 = 1.48962$
$n_3 = 1.93268$
$n_4 = 2.31614$

Unit = 1.00000

$$\frac{B \cdot C \cdot D}{A \cdot D - C \cdot (B - D)} - E = 0.00000$$

$$\frac{n_1}{(n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3} - E = 0.00000$$

1CST5R3

Given. $A := .86000$ $B := .65041$

$C := .51324$ $D := .40667$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$ac := \frac{A \cdot C}{A + C}$ $cd := 1 - \frac{ac}{B}$

$DE := D \cdot cd$ $E := D - DE$

$E = 0.200968$

Definitions.

$$E - \frac{A \cdot C \cdot D}{B \cdot (A + C)} = 0$$

$$E - \frac{n_2}{n_4 \cdot (n_1 + n_3)} = 0$$

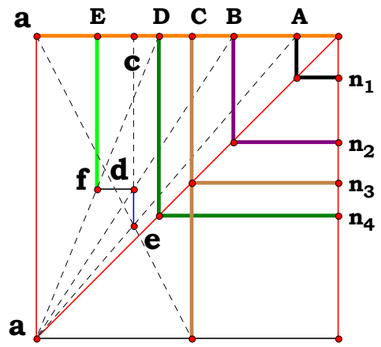
Unit = 1.00000

A = 0.86000
B = 0.65041
C = 0.51324
D = 0.40667
E = 0.20097

n_1 = 1.16279
n_2 = 1.53749
n_3 = 1.94842
n_4 = 2.45898

$\frac{A \cdot C \cdot D}{B \cdot (A+C)} - E = 0.00000$

$\frac{n_2}{n_4 \cdot (n_1+n_3)} - E = 0.00000$



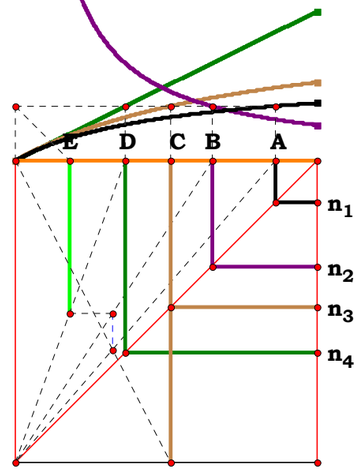
Unit = 1.00000

A = 0.86000
B = 0.65041
C = 0.51324
D = 0.36488
E = 0.18031

n_1 = 1.16279
n_2 = 1.53749
n_3 = 1.94842
n_4 = 2.74066

$\frac{A \cdot C \cdot D}{B \cdot (A+C)} - E = 0.00000$

$\frac{n_2}{n_4 \cdot (n_1+n_3)} - E = 0.00000$



1CST5R4

Given. $A := .79730$ $B := .72565$ $C := .64281$ $D := .49863$ $E := .29661$ $F := .17540$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E} \quad n_6 := \frac{1}{F}$$

Descriptions.

$$bk := \frac{A \cdot C}{A + C} \qquad jk := 1 - \frac{A - bk}{A} \qquad bh := B \cdot jk$$

$$cd := 1 - \frac{D - bh}{D} \qquad bd := E \cdot cd \qquad bg := \frac{bd}{1 - cd}$$

$$bf := \frac{bg \cdot F}{bg + F} \qquad ef := \frac{bf}{F} \qquad G := \frac{bh}{ef}$$

$G = 0.427227$

Definitions.

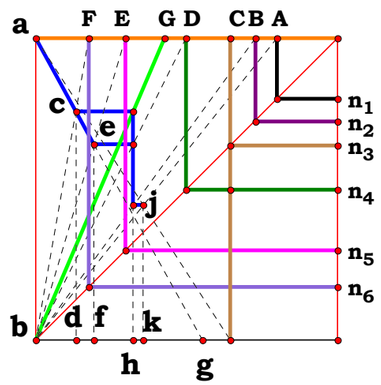
$$G - \frac{B \cdot C \cdot E + F \cdot (A \cdot D - B \cdot C + C \cdot D)}{E \cdot (A + C)} = 0$$

$$G - \frac{n_2 \cdot n_5 \cdot (n_1 + n_3) - n_1 \cdot n_4 \cdot (n_5 - n_6)}{n_2 \cdot n_4 \cdot n_6 \cdot (n_1 + n_3)} = 0$$

Unit = 1.00000

A = 0.79730
B = 0.72565
C = 0.64281
D = 0.49863
E = 0.29661
F = 0.17540
G = 0.42723

n_1 = 1.25423
n_2 = 1.37808
n_3 = 1.55567
n_4 = 2.00550
n_5 = 3.37147
n_6 = 5.70125



$$\frac{B \cdot C \cdot E + F \cdot ((A \cdot D - B \cdot C) + C \cdot D)}{E \cdot (A + C)} - G = 0.00000$$

$$\frac{n_2 \cdot n_5 \cdot (n_1 + n_3) - n_1 \cdot n_4 \cdot (n_5 - n_6)}{n_2 \cdot n_4 \cdot n_6 \cdot (n_1 + n_3)} - G = 0.00000$$

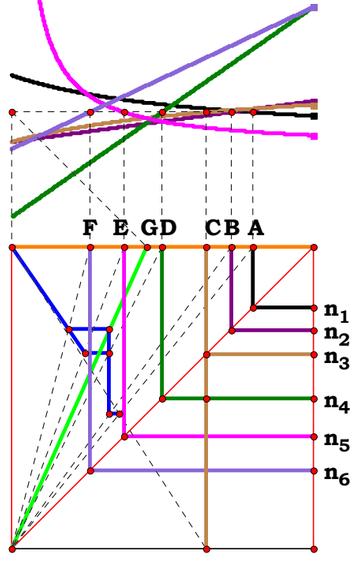
$$\frac{B \cdot C \cdot E + F \cdot ((A \cdot D - B \cdot C) + C \cdot D)}{E \cdot (A + C)} - G = 0.00000$$

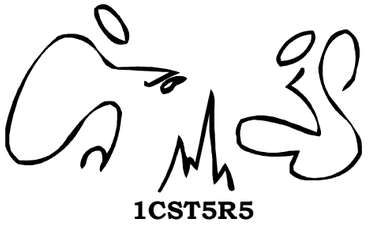
$$\frac{n_2 \cdot n_5 \cdot (n_1 + n_3) - n_1 \cdot n_4 \cdot (n_5 - n_6)}{n_2 \cdot n_4 \cdot n_6 \cdot (n_1 + n_3)} - G = 0.00000$$

Unit = 1.00000

A = 0.79730
B = 0.72565
C = 0.64281
D = 0.49863
E = 0.37184
F = 0.25900
G = 0.44560

n_1 = 1.25423
n_2 = 1.37808
n_3 = 1.55567
n_4 = 2.00550
n_5 = 2.68931
n_6 = 3.86105





1CST5R5

Given. $A := .80148$ $B := .43306$ $C := .69297$ $D := .31890$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$$

Descriptions.

$$bh := \frac{A \cdot C}{A + C} \qquad fh := \frac{bh}{A}$$

$$be := B \cdot fh \qquad de := \frac{be}{D} \qquad E := \frac{bh}{de}$$

$E = 0.5902$

Definitions.

$$E - \frac{A \cdot D}{B} = 0$$ An invisible Variable.

$$E - \frac{n_2}{n_1 \cdot n_4} = 0$$

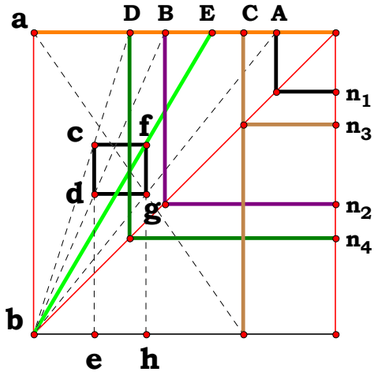
Unit = 1.00000

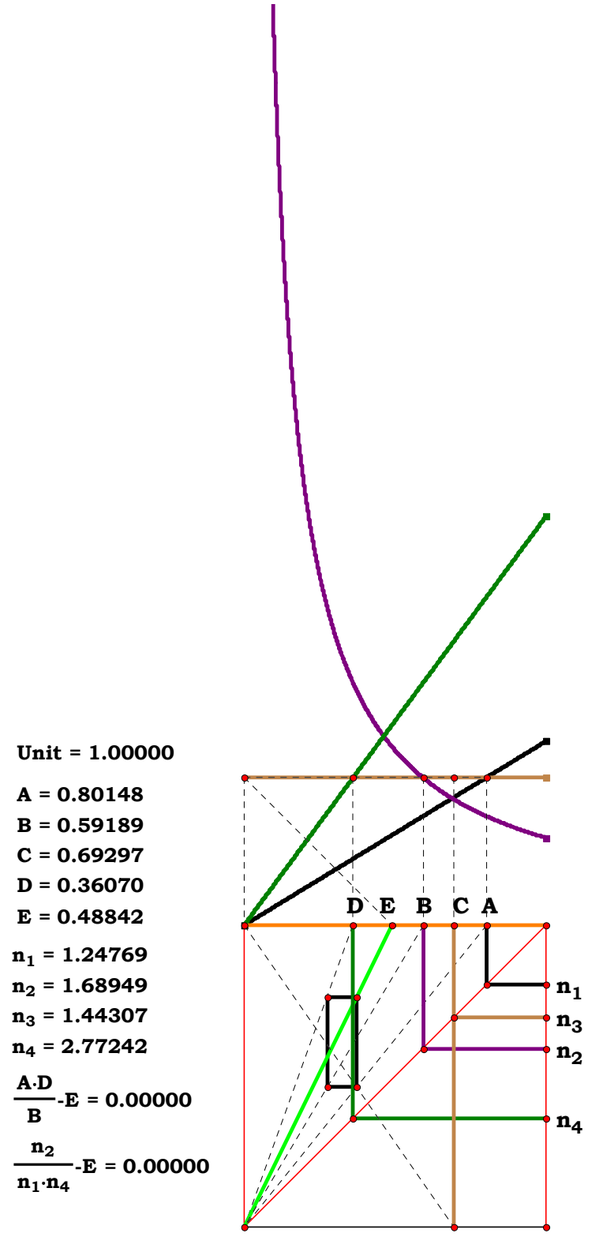
A = 0.80148
B = 0.43306
C = 0.69297
D = 0.31890
E = 0.59020

$n_1 = 1.24769$
$n_2 = 2.30914$
$n_3 = 1.44307$
$n_4 = 3.13581$

$\frac{A \cdot D}{B} - E = 0.00000$

$\frac{n_2}{n_1 \cdot n_4} - E = 0.00000$





Unit = 1.00000

A = 0.80148
B = 0.59189
C = 0.69297
D = 0.36070
E = 0.48842

$n_1 = 1.24769$
$n_2 = 1.68949$
$n_3 = 1.44307$
$n_4 = 2.77242$

$\frac{A \cdot D}{B} - E = 0.00000$

$\frac{n_2}{n_1 \cdot n_4} - E = 0.00000$

1CST5R6

Given. $A := .70953$ $B := .56682$

$C := .46726$ $D := .18096$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$ac := \frac{A \cdot C}{A + C}$ $cd := \frac{B - ac}{B}$ $E := \frac{D}{1 - cd}$

$E = 0.36408$

Definitions.

$E - \frac{B \cdot D \cdot (A + C)}{A \cdot C} = 0$

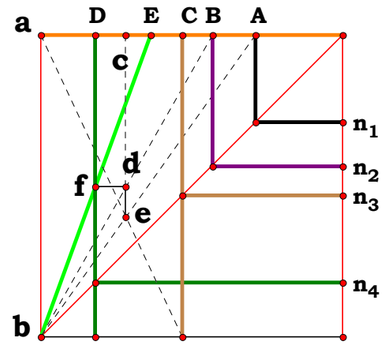
$E - \frac{n_1 + n_3}{n_2 \cdot n_4} = 0$

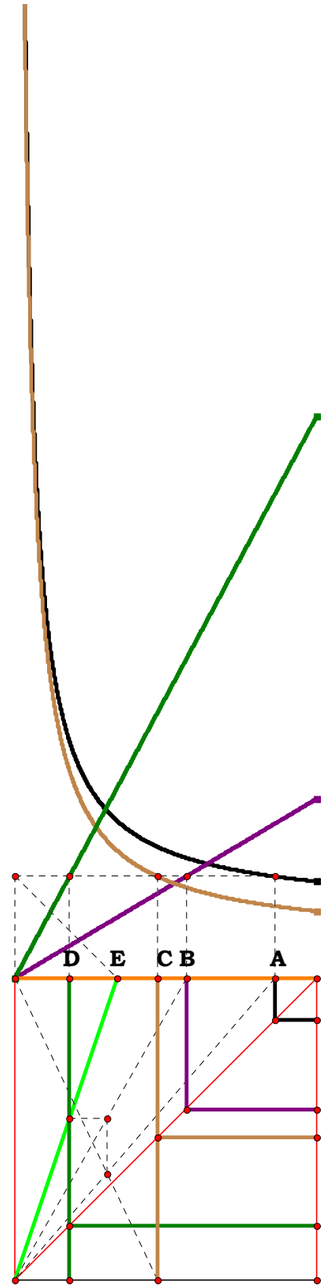
Unit = 1.00000
A = 0.70953
B = 0.56682
C = 0.46726
D = 0.18096
E = 0.36408

n_1 = 1.40939
n_2 = 1.76424
n_3 = 2.14014
n_4 = 5.52601

$\frac{B \cdot D \cdot (A+C)}{A \cdot C} - E = 0.00000$

$\frac{n_1 + n_3}{n_2 \cdot n_4} - E = 0.00000$



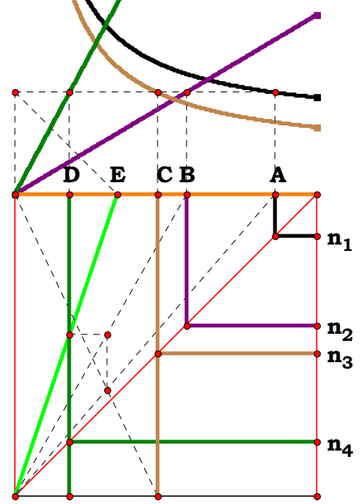


Unit = 1.00000
A = 0.86000
B = 0.56682
C = 0.47144
D = 0.18096
E = 0.33684

n_1 = 1.16279
n_2 = 1.76424
n_3 = 2.12117
n_4 = 5.52601

$\frac{B \cdot D \cdot (A+C)}{A \cdot C} - E = 0.00000$

$\frac{n_1 + n_3}{n_2 \cdot n_4} - E = 0.00000$



1CST5R7

Given. $A := .83074$

$B := .65469$ $C := .53414$

$D := .38995$ $E := .27989$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$aj := \frac{A \cdot C}{A + C} \qquad jk := \frac{aj}{C} \qquad ae := B \cdot (1 - jk)$$

$$cd := \frac{ae}{D} \qquad bd := E \cdot (1 - cd) \qquad F := \frac{bd}{cd}$$

$F = 0.146101$

Definitions.

$$F - \frac{E \cdot (A \cdot D - B \cdot C + C \cdot D)}{B \cdot C} = 0$$

$$F - \frac{n_1 \cdot n_2 - n_1 \cdot n_4 + n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} = 0$$

Unit = 1.00000

A = 0.83074

B = 0.65459

C = 0.53414

D = 0.38995

E = 0.27989

F = 0.14617

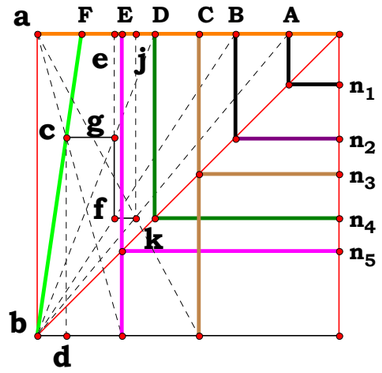
$n_1 = 1.20374$

$n_2 = 1.52767$

$n_3 = 1.87218$

$n_4 = 2.56440$

$n_5 = 3.57287$



$\frac{E \cdot ((A \cdot D - B \cdot C) + C \cdot D)}{B \cdot C} - F = 0.00000$

$\frac{(n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} - F = 0.00000$

Unit = 1.00000

A = 0.86000

B = 0.72565

C = 0.53832

D = 0.36488

E = 0.18375

F = 0.05625

$n_1 = 1.16279$

$n_2 = 1.37808$

$n_3 = 1.85765$

$n_4 = 2.74066$

$n_5 = 5.44216$

$\frac{E \cdot ((A \cdot D - B \cdot C) + C \cdot D)}{B \cdot C} - F = 0.00000$

$\frac{(n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} - F = 0.00000$

1CST5R8

Given. $A := .86000$ $B := .72983$ $C := .57175$ $D := .44429$ $E := .20047$ $F := .31333$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

$$n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E} \quad n_6 := \frac{1}{F}$$

Descriptions.

$$bp := \frac{A \cdot C}{A + C} \qquad kp := \frac{bp}{A} \qquad bh := B \cdot kp$$

$$gh := \frac{bh}{D} \qquad bd := E \cdot gh \qquad bj := \frac{bd}{1 - gh}$$

$$OP := \frac{bj}{bj + F} \qquad G := \frac{bp}{OP}$$

$G = 0.624926$

Definitions.

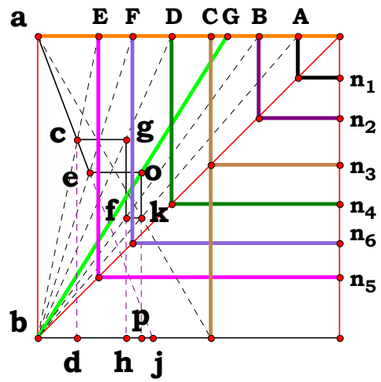
$$G - \frac{A \cdot [B \cdot C \cdot (E - F) + D \cdot F \cdot (A + C)]}{B \cdot E \cdot (A + C)} = 0$$

$$G - \frac{n_1 \cdot n_5 \cdot (n_2 - n_4) + n_2 \cdot n_3 \cdot n_5 + n_1 \cdot n_4 \cdot n_6}{n_1 \cdot n_4 \cdot n_6 \cdot (n_1 + n_3)} = 0$$

Unit = 1.00000

A = 0.86000
B = 0.72983
C = 0.57175
D = 0.44429
E = 0.20047
F = 0.31333
G = 0.62493

$n_1 = 1.16279$
$n_2 = 1.37018$
$n_3 = 1.74900$
$n_4 = 2.25077$
$n_5 = 4.98828$
$n_6 = 3.19148$



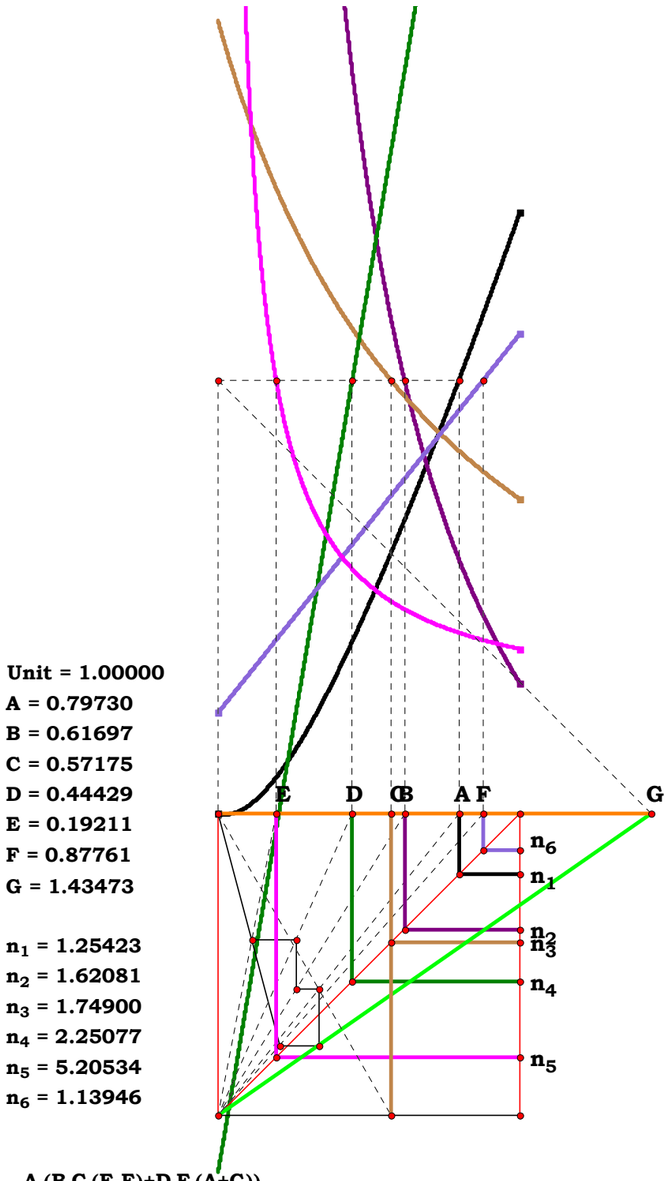
$$\frac{A \cdot (B \cdot C \cdot (E-F) + D \cdot F \cdot (A+C))}{B \cdot E \cdot (A+C)} - G = 0.00000$$

$$\frac{n_1 \cdot n_5 \cdot (n_2 - n_4) + n_2 \cdot n_3 \cdot n_5 + n_1 \cdot n_4 \cdot n_6}{n_1 \cdot n_4 \cdot n_6 \cdot (n_1 + n_3)} - G = 0.00000$$

Unit = 1.00000

A = 0.79730
B = 0.61697
C = 0.57175
D = 0.44429
E = 0.19211
F = 0.87761
G = 1.43473

$n_1 = 1.25423$
$n_2 = 1.62081$
$n_3 = 1.74900$
$n_4 = 2.25077$
$n_5 = 5.20534$
$n_6 = 1.13946$



$$\frac{A \cdot (B \cdot C \cdot (E-F) + D \cdot F \cdot (A+C))}{B \cdot E \cdot (A+C)} - G = 0.00000$$

$$\frac{n_1 \cdot n_5 \cdot (n_2 - n_4) + n_2 \cdot n_3 \cdot n_5 + n_1 \cdot n_4 \cdot n_6}{n_1 \cdot n_4 \cdot n_6 \cdot (n_1 + n_3)} - G = 0.00000$$

1CST5R9

Given.

$A := .86000$ $B := .76745$ $C := .67625$ $D := .55715$ $E := .39692$ $F := .27572$ $G := .47090$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$$

$$n_5 := \frac{1}{E} \quad n_6 := \frac{1}{F} \quad n_7 := \frac{1}{G}$$

Descriptions.

$$bq := \frac{A \cdot C}{A + C} \qquad ko := \frac{bq}{A} \qquad bo := B \cdot ko \qquad mo := \frac{bo}{D}$$

$$bd := E \cdot mo \qquad bg := \frac{bd}{1 - mo} \qquad bf := \frac{bg \cdot F}{bg + F} \qquad ef := \frac{bf}{F}$$

$$bj := G \cdot (1 - ef) \qquad H := \frac{bj}{ef} \qquad H = 0.212364$$

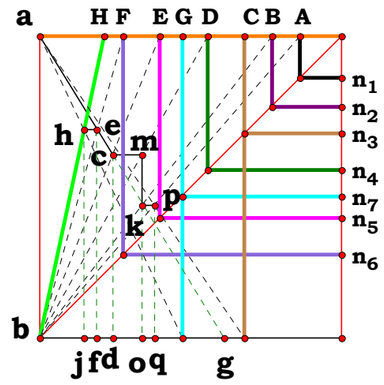
Definitions.

$$H - \frac{F \cdot G \cdot (A \cdot D - B \cdot C + C \cdot D)}{B \cdot C \cdot E} = 0$$

$$H - \frac{n_5 \cdot \left[n_1 \cdot \left(n_2 - n_4 \right) + n_2 \cdot n_3 \right]}{n_1 \cdot n_4 \cdot n_6 \cdot n_7} = 0$$

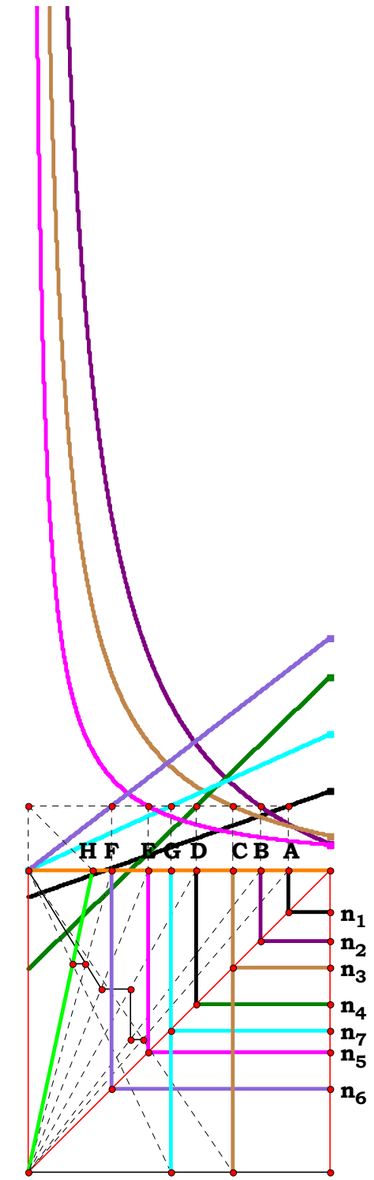
Unit = 1.00000

A = 0.86000
B = 0.76745
C = 0.67625
D = 0.55715
E = 0.39692
F = 0.27572
G = 0.47090
H = 0.21236
n_1 = 1.16279
n_2 = 1.30302
n_3 = 1.47874
n_4 = 1.79486
n_5 = 2.51939
n_6 = 3.62692
n_7 = 2.12359



$$\frac{F \cdot G \cdot ((A \cdot D - B \cdot C) + C \cdot D)}{B \cdot C \cdot E} - H = 0.00000$$

$$\frac{n_5 \cdot ((n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3)}{n_1 \cdot n_4 \cdot n_6 \cdot n_7} - H = 0.00000$$



$$\frac{F \cdot G \cdot ((A \cdot D - B \cdot C) + C \cdot D)}{B \cdot C \cdot E} - H = 0.00000$$

$$\frac{n_5 \cdot ((n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3)}{n_1 \cdot n_4 \cdot n_6 \cdot n_7} - H = 0.00000$$

1CST5R10

Given. $A := .86000$ $B := .76745$ $C := .57175$ $D := .46937$ $E := .38020$ $F := .65608$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

$$n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E} \quad n_6 := \frac{1}{F}$$

Descriptions.

$$ae := \frac{A \cdot C}{A + C} \qquad ef := \frac{ae}{B} \qquad ah := D \cdot ef$$

$$hj := 1 - \frac{ah}{E} \qquad ac := F \cdot hj \qquad G := \frac{ac}{1 - hj}$$

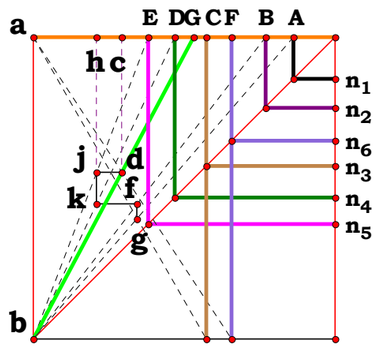
$G = 0.531509$

Definitions.

$$G - \frac{F \cdot [B \cdot E \cdot (A + C) - A \cdot C \cdot D]}{A \cdot C \cdot D} = 0$$

$$G - \frac{\left(n_1 \cdot n_4 - n_2 \cdot n_5 + n_3 \cdot n_4\right)}{n_2 \cdot n_5 \cdot n_6} = 0$$

Unit = 1.00000
A = 0.86000
B = 0.76745
C = 0.57175
D = 0.46937
E = 0.38020
F = 0.65608
G = 0.53151



$n_1 = 1.16279$
$n_2 = 1.30302$
$n_3 = 1.74900$
$n_4 = 2.13051$
$n_5 = 2.63018$
$n_6 = 1.52420$

$\frac{F \cdot (B \cdot E \cdot (A+C) - A \cdot C \cdot D)}{A \cdot C \cdot D} - G = 0.00000$

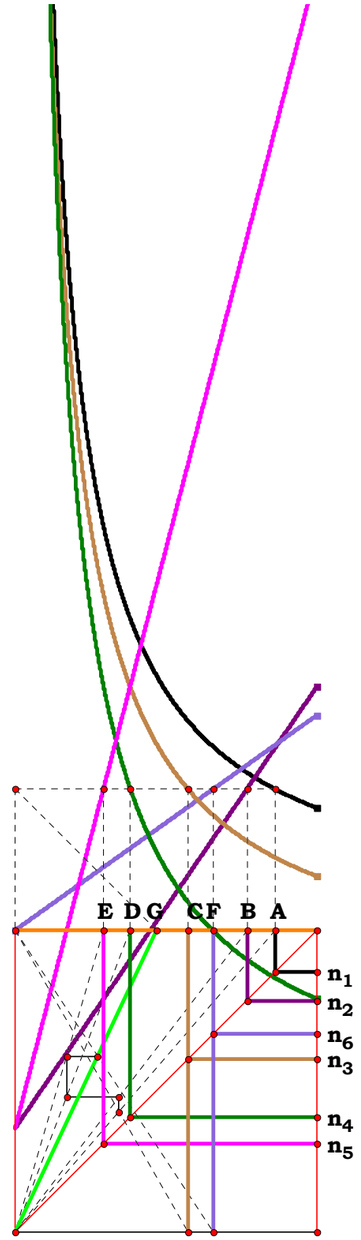
$\frac{(n_1 \cdot n_4 - n_2 \cdot n_5) + n_3 \cdot n_4}{n_2 \cdot n_5 \cdot n_6} - G = 0.00000$

A = 0.86000
B = 0.76745
C = 0.57175
D = 0.38159
E = 0.29243
F = 0.65608
G = 0.46744

$n_1 = 1.16279$
$n_2 = 1.30302$
$n_3 = 1.74900$
$n_4 = 2.62058$
$n_5 = 3.41966$
$n_6 = 1.52420$

$\frac{F \cdot (B \cdot E \cdot (A+C) - A \cdot C \cdot D)}{A \cdot C \cdot D} - G = 0.00000$

$\frac{(n_1 \cdot n_4 - n_2 \cdot n_5) + n_3 \cdot n_4}{n_2 \cdot n_5 \cdot n_6} - G = 0.00000$



Unit = 1.00000

1CST5R11

Given. $A := .91016$ $B := .69639$ $C := .42546$ $D := .79958$ $E := .53904$ $F := .36349$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E} \quad n_6 := \frac{1}{F}$$

Descriptions.

$$fh := \frac{C}{A + C} \qquad bh := B \cdot fh \qquad gh := \frac{bh}{D}$$

$$bn := \frac{bh}{1 - gh} \qquad jn := \frac{bn}{E} \qquad am := F \cdot (1 - jn)$$

$$G := \frac{am}{jn} \qquad G = 0.274715$$

Definitions.

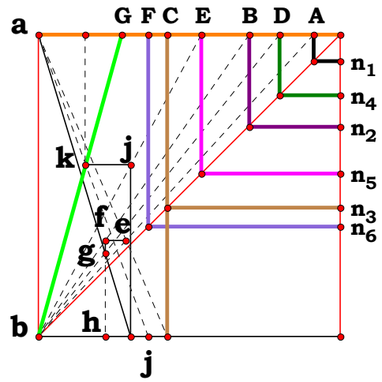
$$G - \frac{F \cdot [A \cdot D \cdot E - B \cdot C \cdot D - C \cdot E \cdot (B - D)]}{B \cdot C \cdot D} = 0$$

$$G - \frac{n_1 \cdot n_2 - n_1 \cdot n_4 + n_2 \cdot n_3 - n_1 \cdot n_5}{n_1 \cdot n_5 \cdot n_6} = 0$$

Unit = 1.00000

A = 0.91016
B = 0.69639
C = 0.42546
D = 0.79958
E = 0.53904
F = 0.36349
G = 0.27471

n_1 = 1.09871
n_2 = 1.43598
n_3 = 2.35040
n_4 = 1.25066
n_5 = 1.85516
n_6 = 2.75109



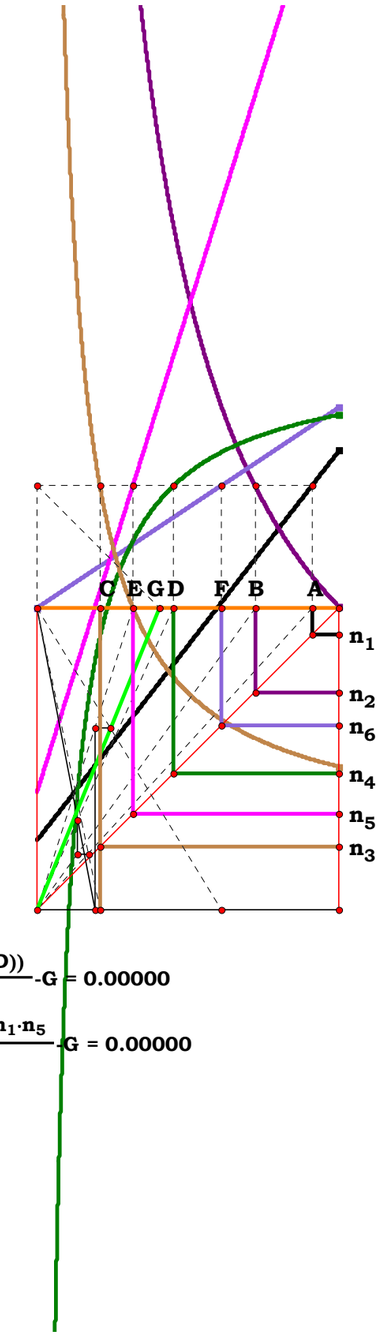
$$\frac{F \cdot (A \cdot D \cdot E - B \cdot C \cdot D - C \cdot E \cdot (B - D))}{B \cdot C \cdot D} - G = 0.00000$$

$$\frac{((n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3) - n_1 \cdot n_5}{n_1 \cdot n_5 \cdot n_6} - G = 0.00000$$

Unit = 1.00000

A = 0.91016
B = 0.72147
C = 0.20811
D = 0.45265
E = 0.31751
F = 0.61010
G = 0.40470

n_1 = 1.09871
n_2 = 1.38606
n_3 = 4.80519
n_4 = 2.20920
n_5 = 3.14955
n_6 = 1.63907



$$\frac{F \cdot (A \cdot D \cdot E - B \cdot C \cdot D - C \cdot E \cdot (B - D))}{B \cdot C \cdot D} - G = 0.00000$$

$$\frac{((n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3) - n_1 \cdot n_5}{n_1 \cdot n_5 \cdot n_6} - G = 0.00000$$

1CST5R12

Given. $A := .74715$ $B := .43724$ $C := .64281$ $D := .55715$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$$

Descriptions.

$$ce := \frac{C}{A + C} \qquad be := B \cdot ce$$

$$de := \frac{be}{D} \qquad bg := \frac{be}{1 - de}$$

$$E := \frac{bg}{de} \qquad E = 0.874557$$

Definitions.

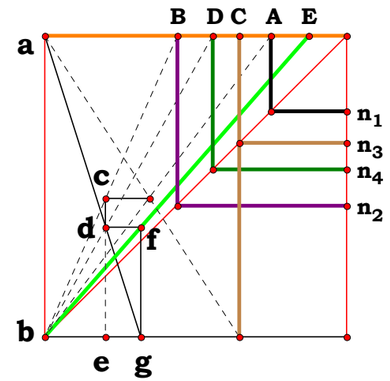
$$E - \frac{D^2 \cdot (A + C)}{A \cdot D - B \cdot C + C \cdot D} = 0$$

$$E - \frac{n_2 \cdot (n_1 + n_3)}{n_4 \cdot (n_1 \cdot n_2 - n_1 \cdot n_4 + n_2 \cdot n_3)} = 0$$

Unit = 1.00000

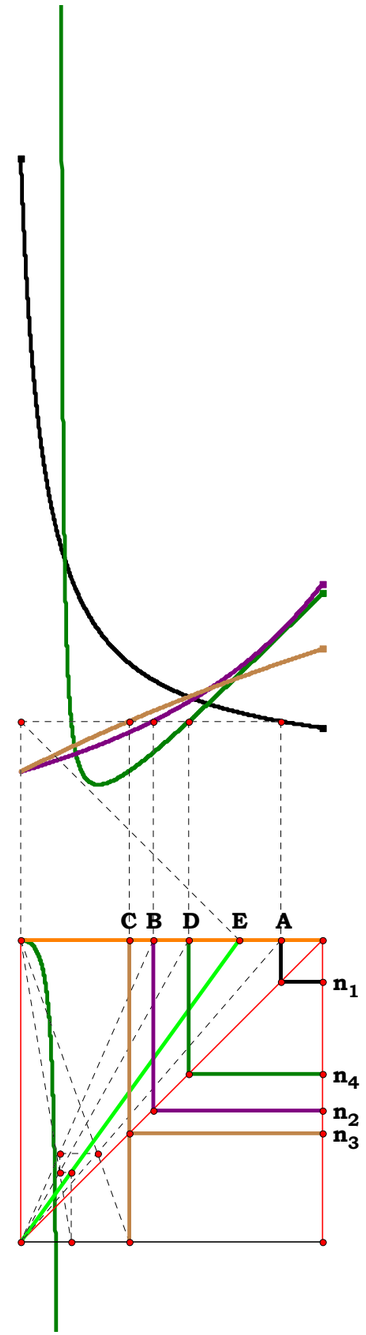
A = 0.74715
B = 0.43724
C = 0.64281
D = 0.55715
E = 0.87456

n_1 = 1.33843
n_2 = 2.28707
n_3 = 1.55567
n_4 = 1.79486



$$\frac{D^2 \cdot (A+C)}{(A \cdot D - B \cdot C) + C \cdot D} - E = 0.00000$$

$$\frac{n_2 \cdot (n_1 + n_3)}{n_4 \cdot ((n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3)} - E = 0.00000$$



Unit = 1.00000

A = 0.86000
B = 0.43724
C = 0.35858
D = 0.55715
E = 0.72445

n_1 = 1.16279
n_2 = 2.28707
n_3 = 2.78876
n_4 = 1.79486

$$\frac{D^2 \cdot (A+C)}{(A \cdot D - B \cdot C) + C \cdot D} - E = 0.00000$$

$$\frac{n_2 \cdot (n_1 + n_3)}{n_4 \cdot ((n_1 \cdot n_2 - n_1 \cdot n_4) + n_2 \cdot n_3)} - E = 0.00000$$

1CST5R13

Given. $A := .86000$ $B := .61279$ $C := .39620$ $D := .25202$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$$

Descriptions.

$$ce := \frac{C}{A + C} \quad be := B \cdot ce \quad bh := \frac{be}{1 - ce}$$

$$df := \frac{bh}{bh + D} \quad E := \frac{bh}{df}$$

$E = 0.534331$

Definitions.

$$E - \frac{A \cdot D + B \cdot C}{A} = 0$$

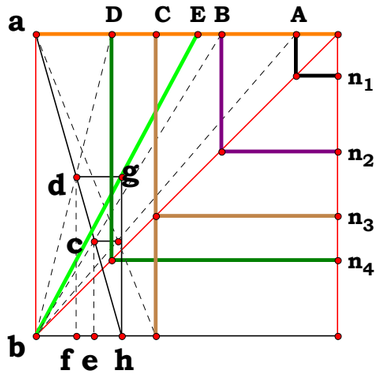
$$E - \frac{n_1 \cdot n_4 + n_2 \cdot n_3}{n_2 \cdot n_3 \cdot n_4} = 0$$

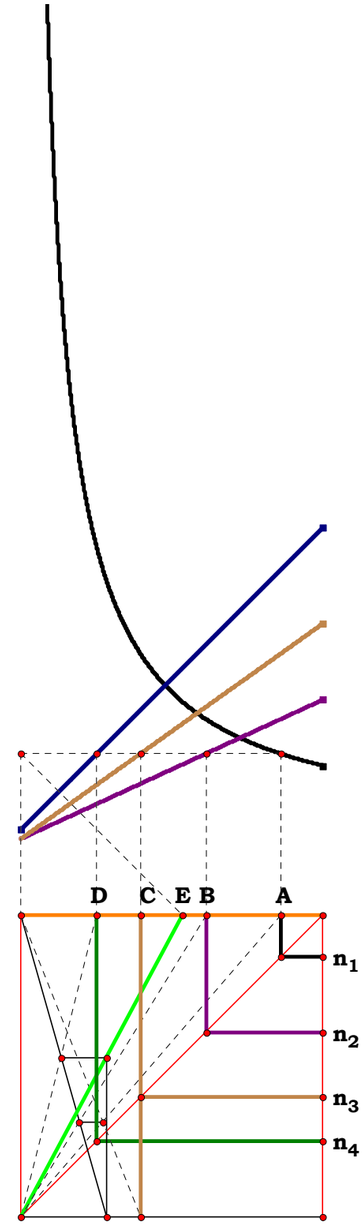
Unit = 1.00000
A = 0.86000
B = 0.61279
C = 0.39620
D = 0.25202
E = 0.53433

$n_1 = 1.16279$
$n_2 = 1.63187$
$n_3 = 2.52397$
$n_4 = 3.96794$

$\frac{A \cdot D + B \cdot C}{A} - E = 0.00000$

$\frac{n_1 \cdot n_4 + n_2 \cdot n_3}{n_2 \cdot n_3 \cdot n_4} - E = 0.00000$



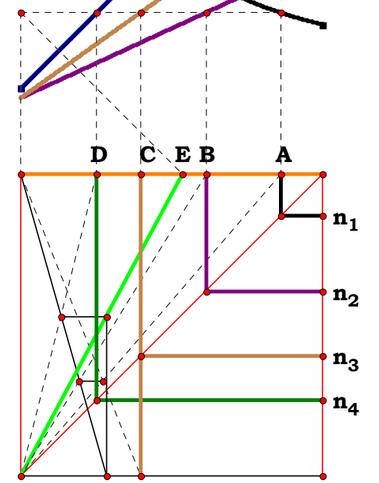


Unit = 1.00000
A = 0.86000
B = 0.61279
C = 0.39620
D = 0.25202
E = 0.53433

$n_1 = 1.16279$
$n_2 = 1.63187$
$n_3 = 2.52397$
$n_4 = 3.96794$

$\frac{A \cdot D + B \cdot C}{A} - E = 0.00000$

$\frac{n_1 \cdot n_4 + n_2 \cdot n_3}{n_2 \cdot n_3 \cdot n_4} - E = 0.00000$



1CST5R14

Given. $A := .86000$ $B := .61697$

$C := .42964$ $D := .22694$

$E := .74803$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$ $n_5 := \frac{1}{E}$

Descriptions.

$cd := \frac{C}{A + C}$ $bd := B \cdot cd$

$bg := \frac{bd}{1 - cd}$ $ef := \frac{bg}{bg + D}$

$bj := E \cdot (1 - ef)$ $F := \frac{bj}{ef}$

$F = 0.550757$

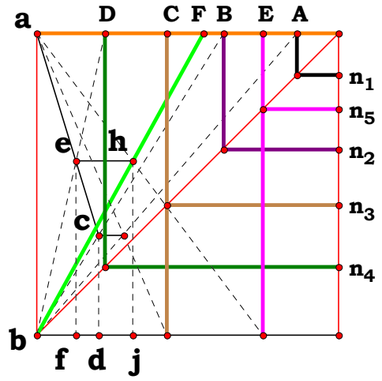
Definitions.

$F - \frac{A \cdot D \cdot E}{B \cdot C} = 0$

$F - \frac{n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} = 0$

Unit = 1.00000

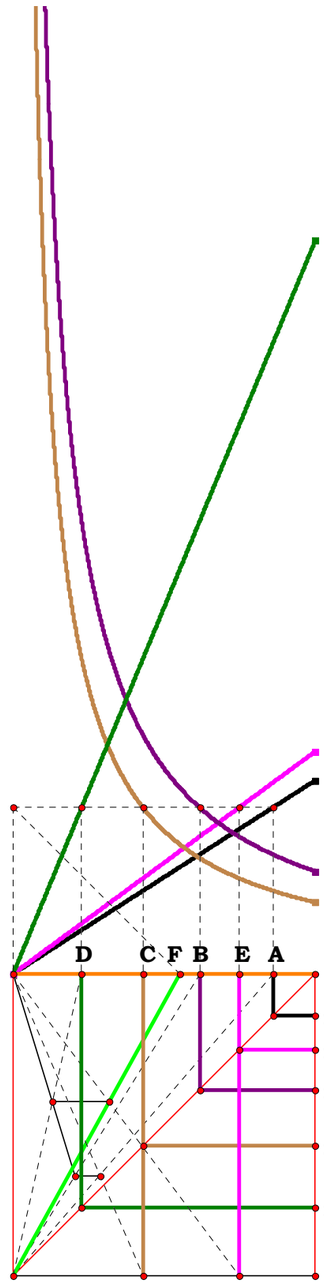
A = 0.86000
B = 0.61697
C = 0.42964
D = 0.22694
E = 0.74803
F = 0.55075



n_1 = 1.16279
n_2 = 1.62081
n_3 = 2.32753
n_4 = 4.40644
n_5 = 1.33685

$\frac{A \cdot D \cdot E}{B \cdot C} - F = 0.00000$

$\frac{n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} - F = 0.00000$



Unit = 1.00000

A = 0.86000
B = 0.61697
C = 0.42964
D = 0.22694
E = 0.74803
F = 0.55075

n_1 = 1.16279
n_2 = 1.62081
n_3 = 2.32753
n_4 = 4.40644
n_5 = 1.33685

$\frac{A \cdot D \cdot E}{B \cdot C} - F = 0.00000$

$\frac{n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} - F = 0.00000$

1CST6R0

Given. $A := .82656$

$B := .45814$ $C := .39620$

$D := .56551$ $E := .62263$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$ $n_5 := \frac{1}{E}$

Descriptions.

$cd := 1 - \frac{B}{A}$ $ac := C \cdot (1 - cd)$

$bh := \frac{ac}{cd}$ $ef := \frac{bh}{bh + D}$

$bg := E \cdot (1 - ef)$ $F := \frac{bg}{ef}$

$F = 0.714662$

Definitions.

$$F - \frac{D \cdot E \cdot (A - B)}{B \cdot C} = 0$$

$$F - \frac{n.3 \cdot (n.2 - n.1)}{n.1 \cdot n.4 \cdot n.5} = 0$$

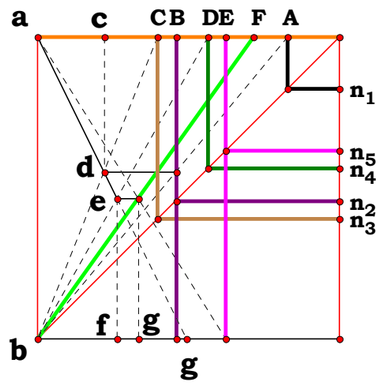
Unit = 1.00000

A = 0.82656
B = 0.45814
C = 0.39620
D = 0.56551
E = 0.62263
F = 0.71466

n_1 = 1.20983
n_2 = 2.18274
n_3 = 2.52397
n_4 = 1.76832
n_5 = 1.60608

$\frac{D \cdot E \cdot (A-B)}{B \cdot C} - F$ = 0.00000

$\frac{n_3 \cdot (n_2 - n_1)}{n_1 \cdot n_4 \cdot n_5} - F$ = 0.00000



Unit = 1.00000

A = 0.84746
B = 0.41216
C = 0.57175
D = 0.70344
E = 0.21719
F = 0.28221

n_1 = 1.17999
n_2 = 2.42623
n_3 = 1.74900
n_4 = 1.42158
n_5 = 4.60428

$\frac{D \cdot E \cdot (A-B)}{B \cdot C} - F$ = 0.00000

$\frac{n_3 \cdot (n_2 - n_1)}{n_1 \cdot n_4 \cdot n_5} - F$ = 0.00000

1CST6R1

Given. $A := .53397$ $B := .73819$ $C := .85598$ $D := .59477$ $E := .43036$ $F := .38021$ $G := .22011$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$$

$$n_5 := \frac{1}{E} \quad n_6 := \frac{1}{F} \quad n_7 := \frac{1}{G}$$

Descriptions.

$$gh := \frac{B}{A+B} \qquad bd := C \cdot gh \qquad bj := \frac{bd}{1-gh}$$

$$ef := \frac{bj}{bj+D} \qquad bm := E \cdot (1-ef) \qquad bq := \frac{bm \cdot gh}{ef}$$

$$oq := \frac{bq}{F} \qquad H := \frac{G}{oq}$$

$H = 0.666762$

Definitions.

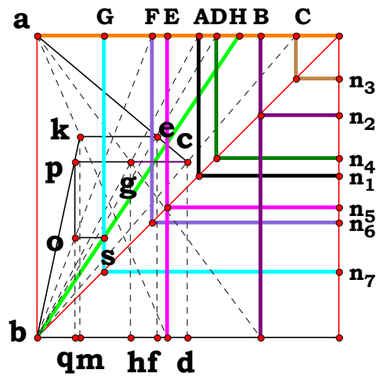
$$H - \frac{C \cdot F \cdot G \cdot (A+B)}{A \cdot D \cdot E} = 0$$

$$H - \frac{n_4 \cdot n_5 \cdot (n_1+n_2)}{n_2 \cdot n_3 \cdot n_6 \cdot n_7} = 0$$

Unit = 1.00000
A = 0.53397
B = 0.73819
C = 0.85598
D = 0.59477
E = 0.43036
F = 0.38021
G = 0.22011
H = 0.66677
n_1 = 1.87275
n_2 = 1.35467
n_3 = 1.16825
n_4 = 1.68133
n_5 = 2.32363
n_6 = 2.63011
n_7 = 4.54317

$\frac{C \cdot F \cdot G \cdot (A+B)}{A \cdot D \cdot E}$-H = 0.00000

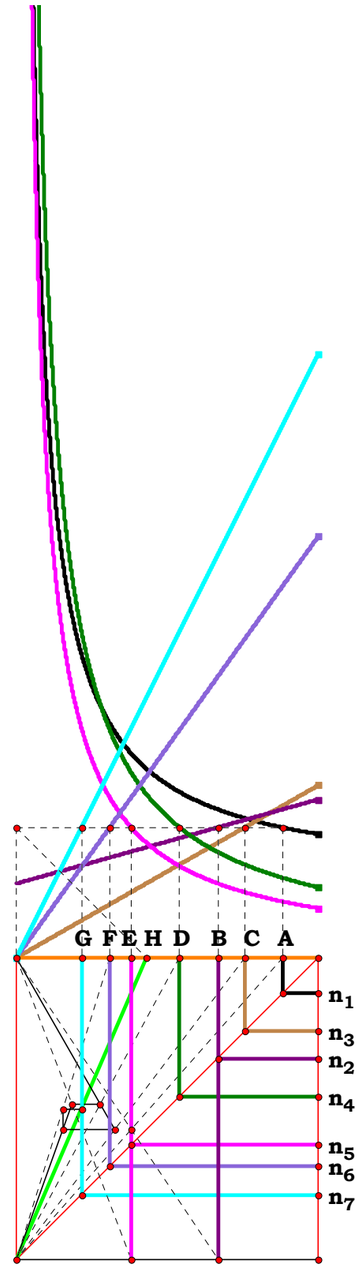
$\frac{n_4 \cdot n_5 \cdot (n_1+n_2)}{n_2 \cdot n_3 \cdot n_6 \cdot n_7}$-H = 0.00000



Unit = 1.00000
A = 0.88090
B = 0.66713
C = 0.75567
D = 0.54043
E = 0.38020
F = 0.30915
G = 0.21593
H = 0.43144
n_1 = 1.13520
n_2 = 1.49895
n_3 = 1.32334
n_4 = 1.85039
n_5 = 2.63018
n_6 = 3.23462
n_7 = 4.63111

$\frac{C \cdot F \cdot G \cdot (A+B)}{A \cdot D \cdot E}$-H = 0.00000

$\frac{n_4 \cdot n_5 \cdot (n_1+n_2)}{n_2 \cdot n_3 \cdot n_6 \cdot n_7}$-H = 0.00000



1CST6R2

Given. $A := .86000$ $B := .72565$ $C := .30006$ $D := .45265$ $E := .23391$ $F := .53905$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E} \quad n_6 := \frac{1}{F}$$

Descriptions.

$$hj := \frac{B}{A + B} \qquad be := C \cdot hj$$

$$de := \frac{be}{D} \qquad bg := \frac{be}{1 - de}$$

$$fg := \frac{bg}{E} \qquad G := \frac{F}{fg}$$

$G = 0.639669$

Definitions.

$$G - \frac{E \cdot F \cdot (A \cdot D - B \cdot C + B \cdot D)}{B \cdot C \cdot D} = 0$$

$$G - \frac{n_1 \cdot n_3 - n_1 \cdot n_4 + n_2 \cdot n_3}{n_1 \cdot n_5 \cdot n_6} = 0$$

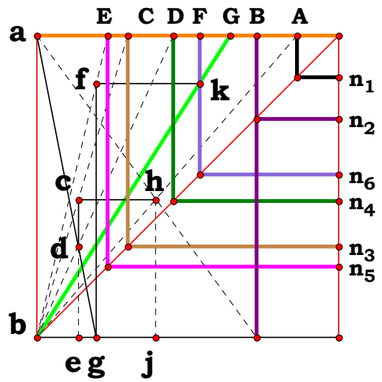
Unit = 1.00000

A = 0.86000
B = 0.72565
C = 0.30006
D = 0.45265
E = 0.23391
F = 0.53905
G = 0.63965

n_1 = 1.16279
n_2 = 1.37808
n_3 = 3.33261
n_4 = 2.20920
n_5 = 4.27517
n_6 = 1.85513

$\frac{E \cdot F \cdot ((A \cdot D - B \cdot C) + B \cdot D)}{B \cdot C \cdot D}$ -G = 0.00000

$\frac{(n_1 \cdot n_3 - n_1 \cdot n_4) + n_2 \cdot n_3}{n_1 \cdot n_5 \cdot n_6}$ -G = 0.00000



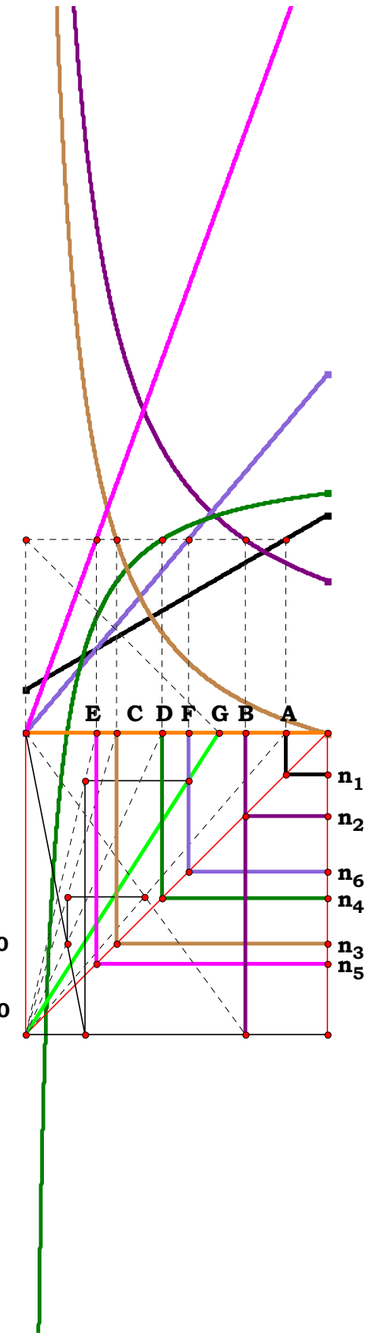
Unit = 1.00000

A = 0.86000
B = 0.72565
C = 0.30006
D = 0.45265
E = 0.23391
F = 0.53905
G = 0.63965

n_1 = 1.16279
n_2 = 1.37808
n_3 = 3.33261
n_4 = 2.20920
n_5 = 4.27517
n_6 = 1.85513

$\frac{E \cdot F \cdot ((A \cdot D - B \cdot C) + B \cdot D)}{B \cdot C \cdot D}$ -G = 0.00000

$\frac{(n_1 \cdot n_3 - n_1 \cdot n_4) + n_2 \cdot n_3}{n_1 \cdot n_5 \cdot n_6}$ -G = 0.00000



1CST6R3

Given. $A := .82238$ $B := .63369$

$C := .37948$ $D := .53207$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$bf := \frac{A \cdot D}{A + D}$ $cd := \frac{C - bf}{C}$ $E := \frac{B}{1 - cd}$

$E = 0.744368$

Definitions.

$E - \frac{A \cdot B \cdot C + B \cdot C \cdot D}{A \cdot D} = 0$

$E - \frac{n_1 + n_4}{n_2 \cdot n_3} = 0$

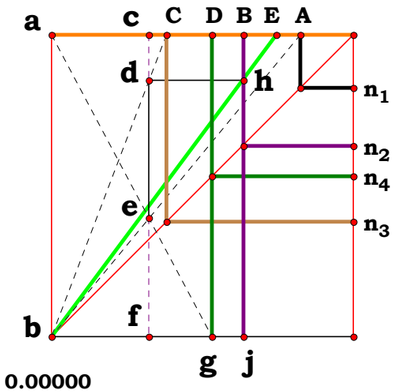
Unit = 1.00000

A = 0.82238
B = 0.63369
C = 0.37948
D = 0.53207
E = 0.74437

$n_1 = 1.21598$
$n_2 = 1.57805$
$n_3 = 2.63517$
$n_4 = 1.87946$

$\frac{A \cdot B \cdot C + B \cdot C \cdot D}{A \cdot D} - E = 0.00000$

$\frac{n_1 + n_4}{n_2 \cdot n_3} - E = 0.00000$

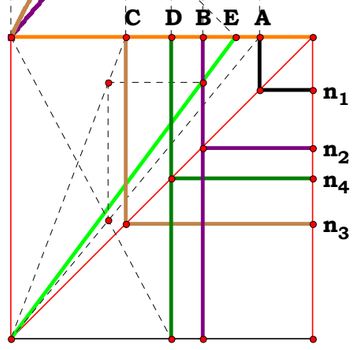


A = 0.82238
B = 0.63369
C = 0.37948
D = 0.53207
E = 0.74437

$n_1 = 1.21598$
$n_2 = 1.57805$
$n_3 = 2.63517$
$n_4 = 1.87946$

$\frac{A \cdot B \cdot C + B \cdot C \cdot D}{A \cdot D} - E = 0.00000$

$\frac{n_1 + n_4}{n_2 \cdot n_3} - E = 0.00000$



Unit = 1.00000

1CST6R4

Given. $A := .75551$ $B := .60443$

$C := .25409$ $D := .48191$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$gh := \frac{B}{A}$ $be := C \cdot gh$

$de := \frac{D - be}{D}$ $E := \frac{be}{de}$

$E = 0.351585$

Definitions.

$$E - \frac{B \cdot C \cdot D}{A \cdot D - B \cdot C} = 0$$

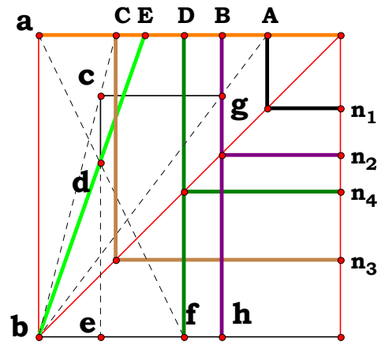
$$E - \frac{n_1}{n_2 \cdot n_3 - n_1 \cdot n_4} = 0$$

Unit = 1.00000
A = 0.75551
B = 0.60443
C = 0.25409
D = 0.48191
E = 0.35159

$n_1 = 1.32362$
$n_2 = 1.65444$
$n_3 = 3.93566$
$n_4 = 2.07507$

$\frac{B \cdot C \cdot D}{A \cdot D - B \cdot C} = 0.35159$

$\frac{n_1}{n_2 \cdot n_3 - n_1 \cdot n_4} = 0.35159$

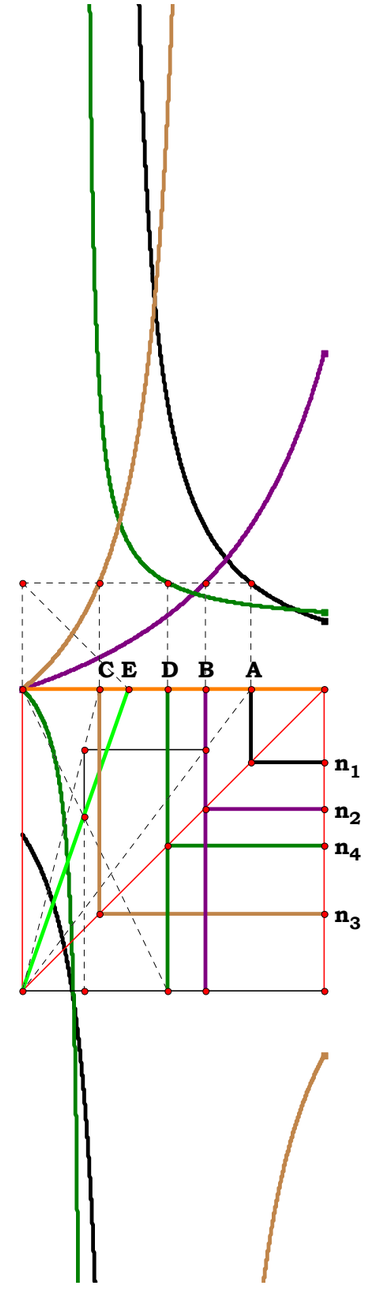


Unit = 1.00000
A = 0.75551
B = 0.60443
C = 0.25409
D = 0.48191
E = 0.35159

$n_1 = 1.32362$
$n_2 = 1.65444$
$n_3 = 3.93566$
$n_4 = 2.07507$

$\frac{B \cdot C \cdot D}{A \cdot D - B \cdot C} = 0.35159$

$\frac{n_1}{n_2 \cdot n_3 - n_1 \cdot n_4} = 0.35159$



1CST6R5

Given. $A := .80148$

$B := .70893$ $C := .62191$

$D := .41921$ $E := .19211$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$hj := \frac{B}{A + B} \qquad bd := C \cdot hj \qquad bg := \frac{bd}{1 - hj}$$

$$ef := \frac{bg}{bg + D} \qquad F := \frac{E}{ef}$$

$F = 0.338511$

Definitions.

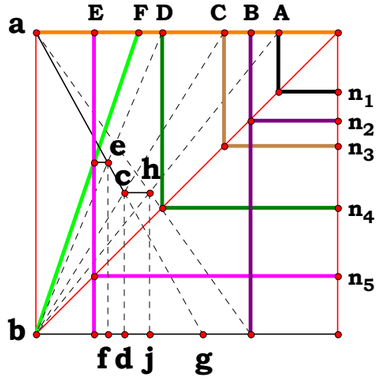
$$F - \frac{E \cdot (A \cdot D + B \cdot C)}{B \cdot C} = 0$$

$$F - \frac{n_1 \cdot n_4 + n_2 \cdot n_3}{n_1 \cdot n_5 \cdot n_4} = 0$$

Unit = 1.00000

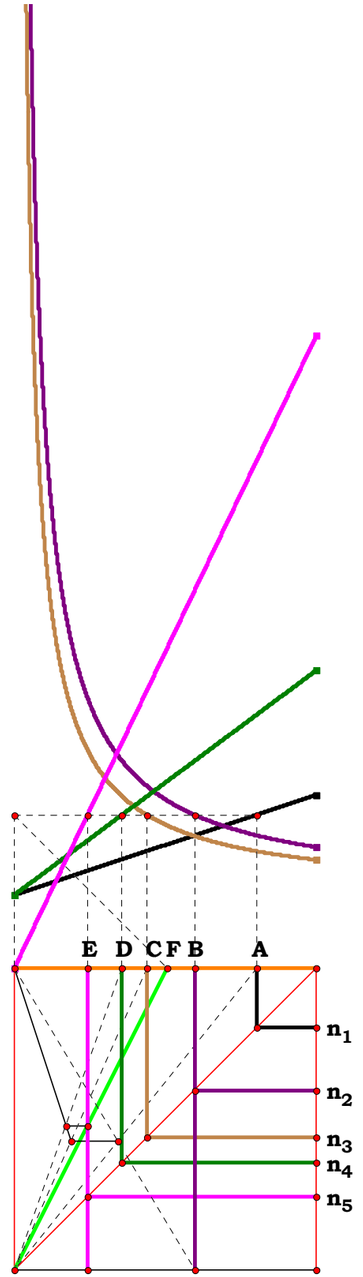
A = 0.80148
B = 0.70893
C = 0.62191
D = 0.41921
E = 0.19211
F = 0.33851

$n_1 = 1.24769$
$n_2 = 1.41058$
$n_3 = 1.60794$
$n_4 = 2.38542$
$n_5 = 5.20534$



$$\frac{E \cdot (A \cdot D + B \cdot C)}{B \cdot C} - F = 0.00000$$

$$\frac{n_1 \cdot n_4 + n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} = 0.33851$$



Unit = 1.00000

A = 0.80148
B = 0.59607
C = 0.43800
D = 0.35652
E = 0.24227
F = 0.50742

$n_1 = 1.24769$
$n_2 = 1.67764$
$n_3 = 2.28311$
$n_4 = 2.80493$
$n_5 = 4.12765$

$$\frac{E \cdot (A \cdot D + B \cdot C)}{B \cdot C} - F = 0.00000$$

$$\frac{n_1 \cdot n_4 + n_2 \cdot n_3}{n_1 \cdot n_4 \cdot n_5} = 0.50742$$

1CST6R6

Given. $A := .86000$ $B := .69221$ $C := .55503$ $D := .47773$ $E := .18793$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$fg := \frac{B}{A+B} \qquad be := C \cdot fg$$

$$de := \frac{be}{D} \qquad F := \frac{E}{de}$$

$F = 0.362723$

Definitions.

$$F - \frac{D \cdot E \cdot (A+B)}{B \cdot C} = 0$$

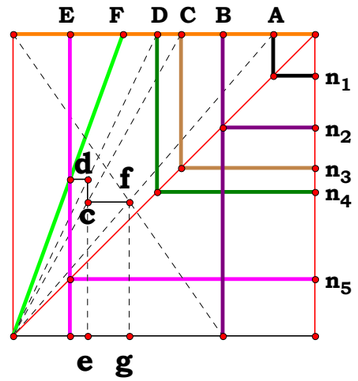
$$F - \frac{n_3 \cdot (n_1 + n_2)}{n_1 \cdot n_4 \cdot n_5} = 0$$

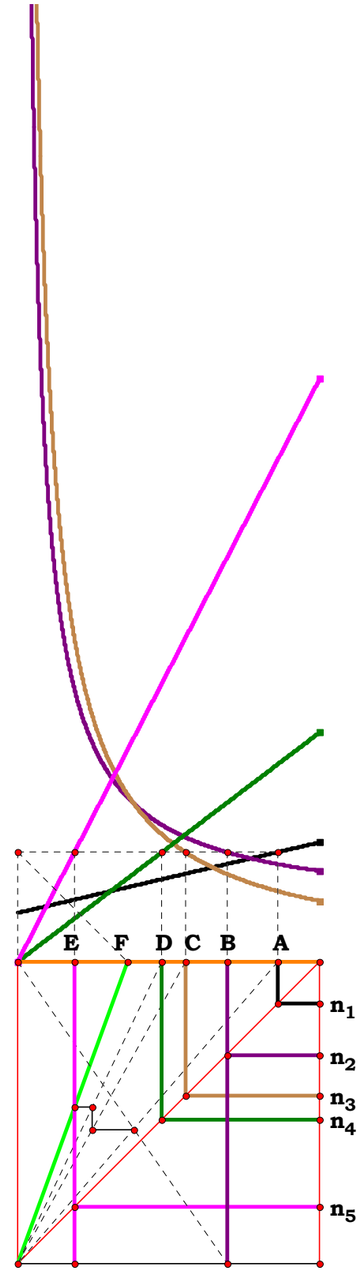
Unit = 1.00000
A = 0.86000
B = 0.69221
C = 0.55503
D = 0.47773
E = 0.18793
F = 0.36272

$n_1 = 1.16279$
$n_2 = 1.44465$
$n_3 = 1.80169$
$n_4 = 2.09323$
$n_5 = 5.32112$

$\frac{D \cdot E \cdot (A+B)}{B \cdot C} - F = 0.00000$

$\frac{n_3 \cdot (n_1+n_2)}{n_1 \cdot n_4 \cdot n_5} - F = 0.00000$





Unit = 1.00000
A = 0.86000
B = 0.69221
C = 0.55503
D = 0.47773
E = 0.18793
F = 0.36272

$n_1 = 1.16279$
$n_2 = 1.44465$
$n_3 = 1.80169$
$n_4 = 2.09323$
$n_5 = 5.32112$

$\frac{D \cdot E \cdot (A+B)}{B \cdot C} - F = 0.00000$

$\frac{n_3 \cdot (n_1+n_2)}{n_1 \cdot n_4 \cdot n_5} - F = 0.00000$

1CST6R7

Given.

$A := .86000$ $B := .68385$ $C := .34186$ $D := .51535$ $E := .20047$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$ce := \frac{B}{A} \qquad be := ce \cdot C$$

$$de := 1 - \frac{be}{D} \qquad F := \frac{E}{de}$$

$F = 0.42426$

Definitions.

$$F - \frac{A \cdot D \cdot E}{A \cdot D - B \cdot C} = 0$$

$$F - \frac{n_2 \cdot n_3}{n_5 \cdot \left(n_2 \cdot n_3 - n_1 \cdot n_4\right)} = 0$$

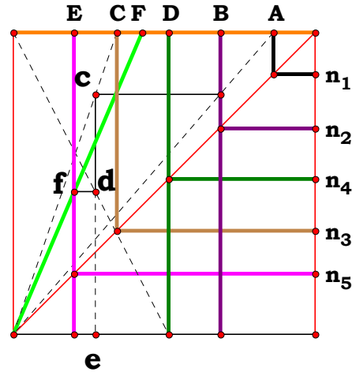
Unit = 1.00000

A = 0.86000
B = 0.68385
C = 0.34186
D = 0.51535
E = 0.20047
F = 0.42427

$n_1 = 1.16279$
$n_2 = 1.46231$
$n_3 = 2.92515$
$n_4 = 1.94043$
$n_5 = 4.98828$

$\frac{A \cdot D \cdot E}{A \cdot D - B \cdot C} - F = 0.00000$

$\frac{n_2 \cdot n_3}{n_5 \cdot (n_2 \cdot n_3 - n_1 \cdot n_4)} - F = 0.00000$



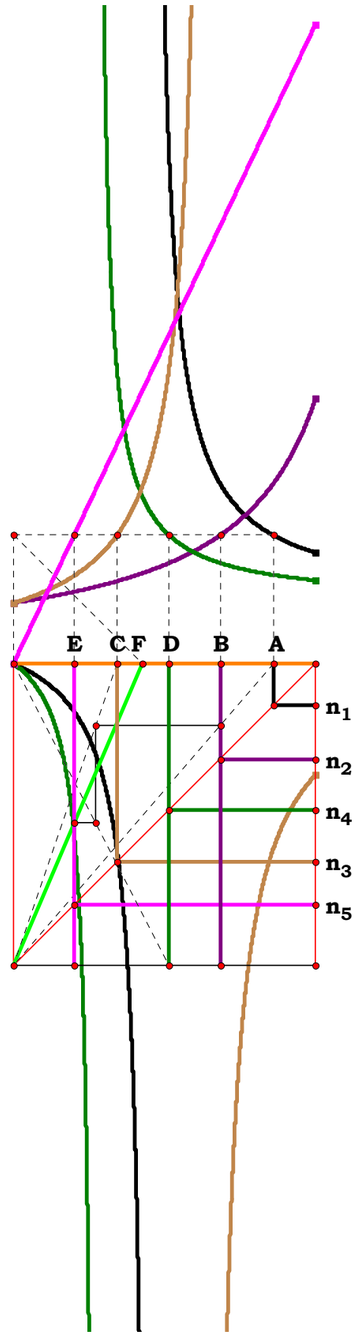
Unit = 1.00000

A = 0.86000
B = 0.68385
C = 0.34186
D = 0.51535
E = 0.20047
F = 0.42427

$n_1 = 1.16279$
$n_2 = 1.46231$
$n_3 = 2.92515$
$n_4 = 1.94043$
$n_5 = 4.98828$

$\frac{A \cdot D \cdot E}{A \cdot D - B \cdot C} - F = 0.00000$

$\frac{n_2 \cdot n_3}{n_5 \cdot (n_2 \cdot n_3 - n_1 \cdot n_4)} - F = 0.00000$



1CST7R0

Given.

$A := .87254$ $B := .22825$ $C := .69715$ $D := .41085$ $E := .61427$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$hj := \frac{C}{B + C} \qquad bj := \frac{B \cdot C}{B + C} \qquad ac := \frac{(1 - hj) \cdot A}{A - bj}$$

$$bg := D \cdot (1 - ac) \qquad bp := \frac{bg}{ac} \qquad ko := \frac{bp}{bp + A}$$

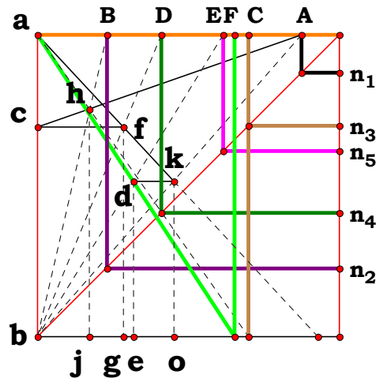
$$be := E \cdot ko \qquad F := \frac{be}{1 - ko} \qquad F = 0.652332$$

Definitions.

$$F - \frac{C \cdot D \cdot E \cdot (A - B)}{A^2 \cdot B} = 0$$

$$F - \frac{n_1 \cdot (n_2 - n_1)}{n_3 \cdot n_4 \cdot n_5} = 0$$

Unit = 1.00000
A = 0.87254
B = 0.22825
C = 0.69715
D = 0.41085
E = 0.61427
F = 0.65234

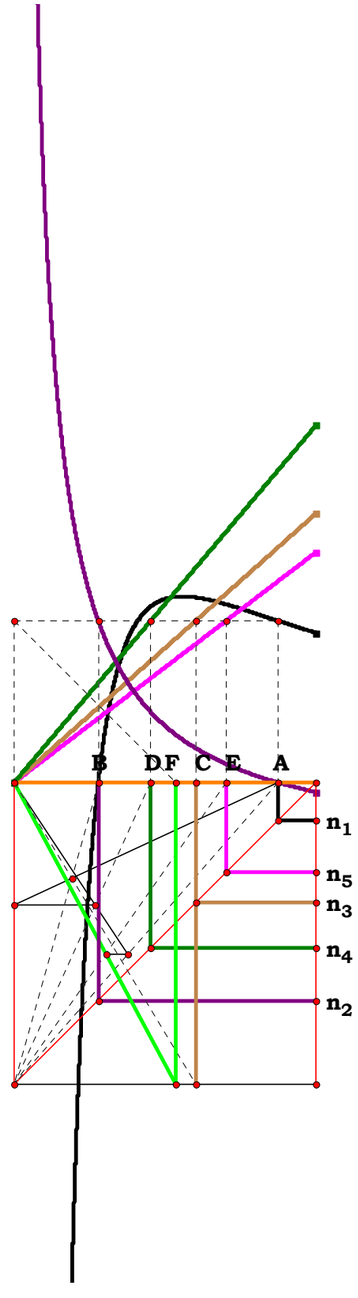


n_1 = 1.14608
n_2 = 4.38117
n_3 = 1.43441
n_4 = 2.43396
n_5 = 1.62794

$\frac{C \cdot D \cdot E \cdot (A-B)}{A^2 \cdot B}$ -F = 0.00000

$\frac{n_1 \cdot (n_2-n_1)}{n_3 \cdot n_4 \cdot n_5}$ -F = 0.00000

Unit = 1.00000
A = 0.87254
B = 0.27841
C = 0.60101
D = 0.45265
E = 0.70205
F = 0.53536



n_1 = 1.14608
n_2 = 3.59186
n_3 = 1.66386
n_4 = 2.20920
n_5 = 1.42440

$\frac{C \cdot D \cdot E \cdot (A-B)}{A^2 \cdot B}$ -F = 0.00000

$\frac{n_1 \cdot (n_2-n_1)}{n_3 \cdot n_4 \cdot n_5}$ -F = 0.00000

1CST7R1

Given. $A := .72625$ $B := .24915$

$C := .62191$ $D := .50699$

$A := \frac{1}{A}$ $B := \frac{1}{B}$ $C := \frac{1}{C}$ $D := \frac{1}{D}$

Descriptions.

$fg := \frac{C}{B + C}$ $bg := \frac{B \cdot C}{B + C}$

$ac := \frac{A \cdot (1 - fg)}{A - bg}$ $de := 1 - ac$

$be := D \cdot de$ $E := \frac{be}{ac}$

$E = -1.513152$

Definitions.

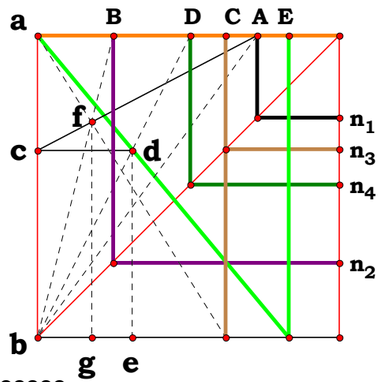
$E - \frac{C \cdot D \cdot (A - B)}{A \cdot B} = 0$

$E - \frac{(B - A)}{C \cdot D} = -2.344512$

Unit = 1.00000

A = 0.72625
B = 0.24915
C = 0.62191
D = 0.50699
E = 0.83137

n_1 = 1.37694
n_2 = 4.01367
n_3 = 1.60794
n_4 = 1.97243



$\frac{C \cdot D \cdot (A-B)}{A \cdot B}$ -E = 0.00000

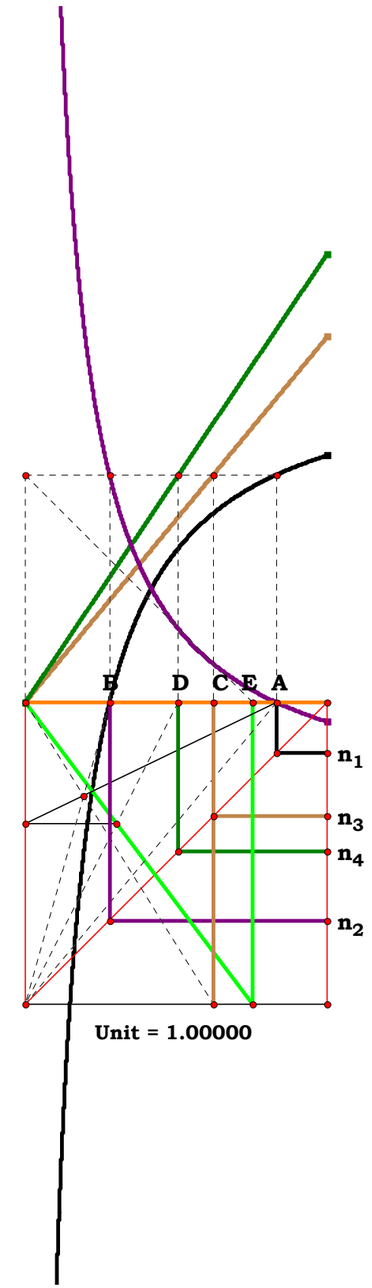
$\frac{n_2 - n_1}{n_3 \cdot n_4}$ -E = 0.00000

A = 0.83074
B = 0.27841
C = 0.62191
D = 0.50699
E = 0.75298

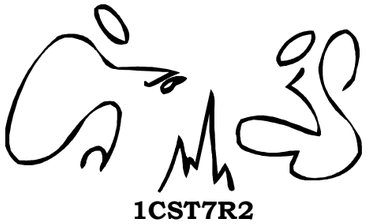
n_1 = 1.20374
n_2 = 3.59186
n_3 = 1.60794
n_4 = 1.97243

$\frac{C \cdot D \cdot (A-B)}{A \cdot B}$ -E = 0.00000

$\frac{n_2 - n_1}{n_3 \cdot n_4}$ -E = 0.00000



Unit = 1.00000



1CST7R2

Given. $A := .86000$ $B := .58358$

$C := .23737$ $D := .44429$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$ef := \frac{C}{B + C}$ $bf := B \cdot ef$

$ac := \frac{A \cdot (1 - ef)}{A - bf}$ $F := D \cdot ac$

$F = 0.392921$

Definitions.

$$F - \frac{A \cdot B \cdot D}{A \cdot B + A \cdot C - B \cdot C} = 0$$

$$F - \frac{n_3}{n_4 \cdot (n_2 - n_1 + n_3)} = 0$$

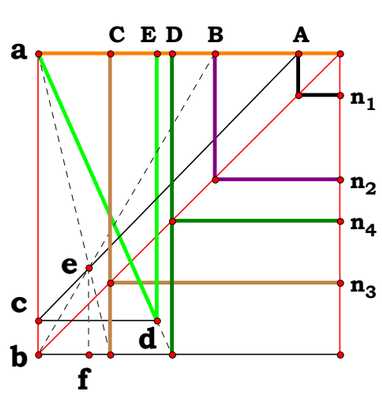
Unit = 1.00000

A = 0.86000
B = 0.58354
C = 0.23737
D = 0.44429
E = 0.39291

n_1 = 1.16279
n_2 = 1.71369
n_3 = 4.21288
n_4 = 2.25077

$\frac{A \cdot B \cdot D}{(A \cdot B + A \cdot C) - B \cdot C} - E = 0.00000$

$\frac{n_3}{n_4 \cdot ((n_3 + n_2) - n_1)} - E = 0.00000$

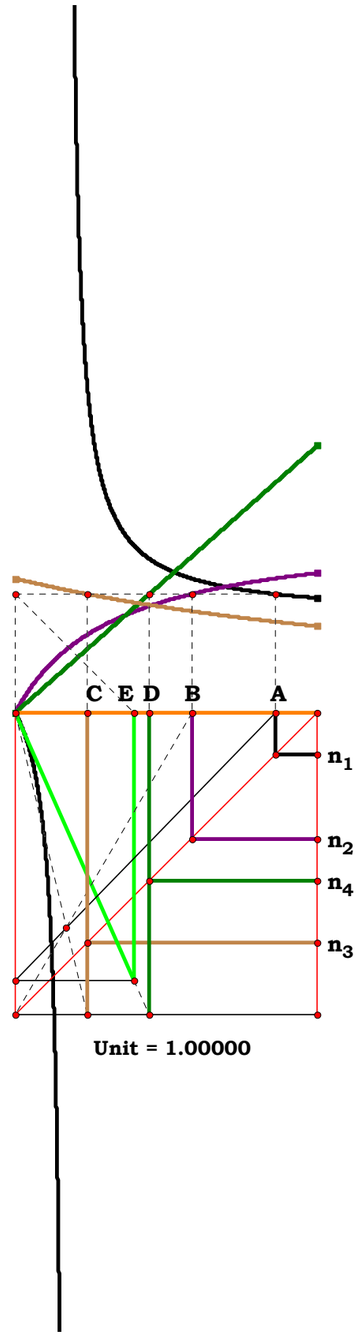


A = 0.86000
B = 0.58354
C = 0.23737
D = 0.44429
E = 0.39291

n_1 = 1.16279
n_2 = 1.71369
n_3 = 4.21288
n_4 = 2.25077

$\frac{A \cdot B \cdot D}{(A \cdot B + A \cdot C) - B \cdot C} - E = 0.00000$

$\frac{n_3}{n_4 \cdot ((n_3 + n_2) - n_1)} - E = 0.00000$



1CST7R3

Given.

$A := .86000$ $B := .42470$ $C := .16213$ $D := .70762$ $E := .60591$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$ad := \frac{C \cdot D}{C + D} \qquad de := \frac{ad}{D}$$

$$ac := \frac{de \cdot A}{A - ad} \qquad ak := \frac{B}{1 - ac}$$

$$F := \frac{ak \cdot E}{ak + E} \qquad F = 0.286815$$

Definitions.

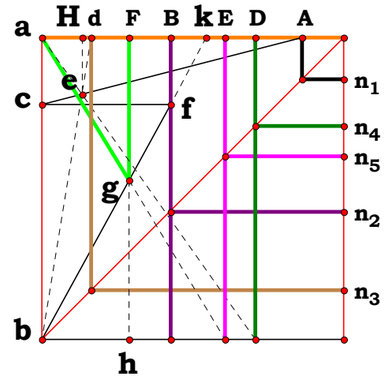
$$F - \frac{B \cdot E \cdot (A \cdot C + A \cdot D - C \cdot D)}{A \cdot B \cdot (C + D) - B \cdot C \cdot D + D \cdot E \cdot (A - C)} = 0$$

$$F - \frac{\left(n_3 - n_1 + n_4\right)}{n_2 \cdot n_3 - n_1 \cdot n_2 - n_1 \cdot n_5 + n_3 \cdot n_5 + n_4 \cdot n_5} = 0$$

Unit = 1.00000

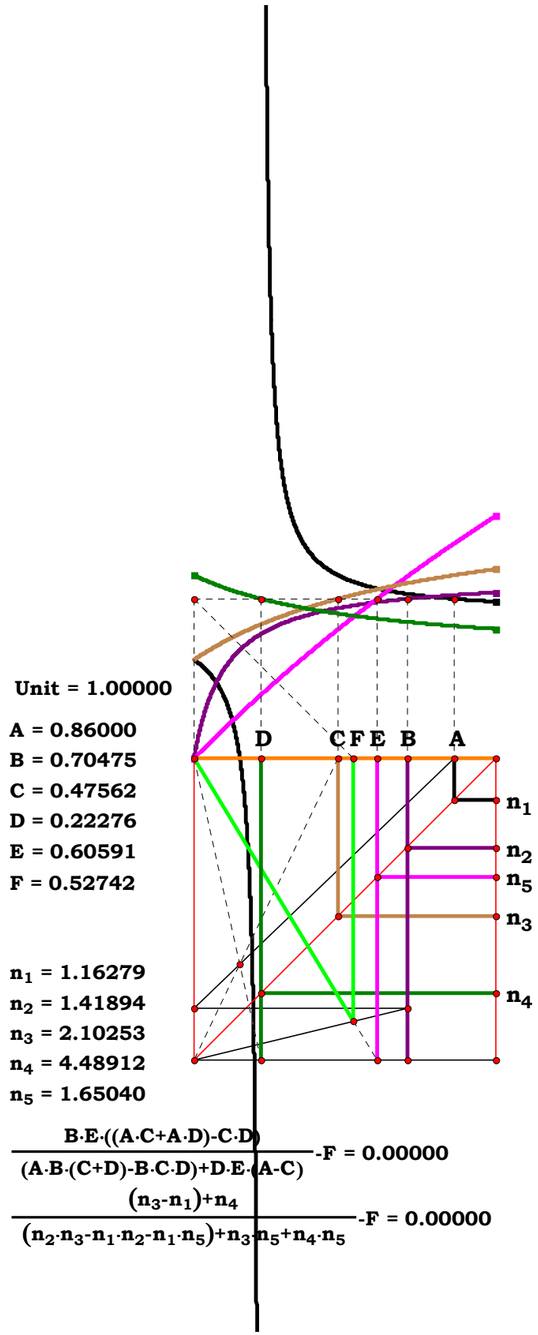
A = 0.86000
B = 0.42470
C = 0.16213
D = 0.70762
E = 0.60591
F = 0.28682

n_1 = 1.16279
n_2 = 2.35459
n_3 = 6.16788
n_4 = 1.41319
n_5 = 1.65040



$$\frac{B \cdot E \cdot ((A \cdot C + A \cdot D) - C \cdot D)}{(A \cdot B \cdot (C + D) - B \cdot C \cdot D) + D \cdot E \cdot (A - C)} - F = 0.00000$$

$$\frac{(n_3 - n_1) + n_4}{(n_2 \cdot n_3 - n_1 \cdot n_2 - n_1 \cdot n_5) + n_3 \cdot n_5 + n_4 \cdot n_5} - F = 0.00000$$



1CST7R4

Given.

$A := .81402$ $B := .27423$ $C := .44218$ $D := .47773$ $E := .70205$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$hj := \frac{C}{B + C} \qquad bj := \frac{B \cdot C}{B + C}$$

$$ac := \frac{A \cdot (1 - hj)}{A - bj} \qquad be := D \cdot (1 - ac)$$

$$bk := \frac{be}{ac} \qquad FG := \frac{bk}{bk + A}$$

$F := E \cdot (1 - FG)$ $F = 0.431364$

Definitions.

$$F - \frac{A^2 \cdot B \cdot E}{A^2 \cdot B + A \cdot C \cdot D - B \cdot C \cdot D} = 0$$

$$F - \frac{n_3 \cdot n_4}{n_5 \cdot \left(n_2 \cdot n_1 - n_1^{\,2} + n_3 \cdot n_4 \right)} = 0$$

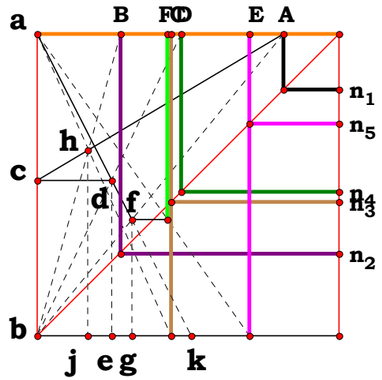
Unit = 1.00000

A = 0.81402
B = 0.27423
C = 0.44218
D = 0.47773
E = 0.70205
F = 0.43136

n_1 = 1.22847
n_2 = 3.64661
n_3 = 2.26153
n_4 = 2.09323
n_5 = 1.42440

$\frac{A^2 \cdot B \cdot E}{(A^2 \cdot B + A \cdot C \cdot D) - B \cdot C \cdot D} - F = 0.00000$

$\frac{n_3 \cdot n_4}{n_5 \cdot ((n_1 \cdot n_2 - n_1^2) + n_3 \cdot n_4)} - F = 0.00000$



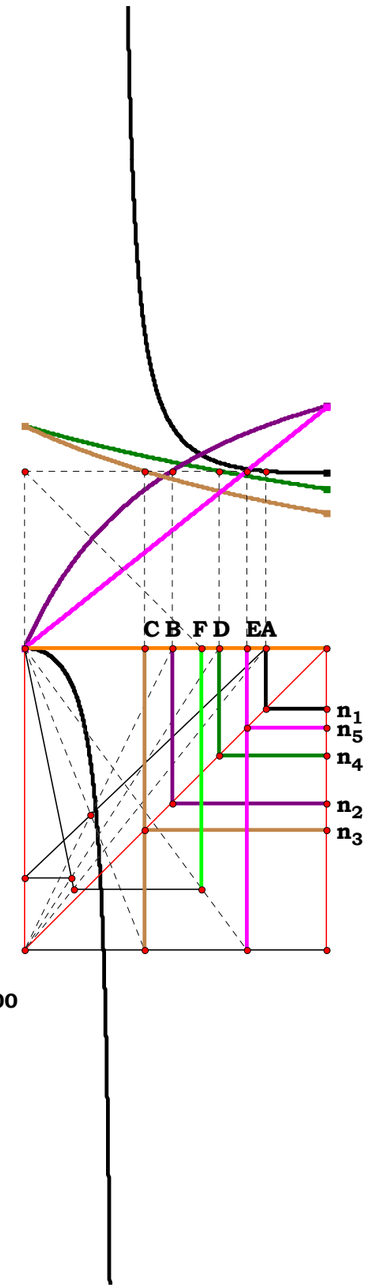
Unit = 1.00000

A = 0.79730
B = 0.48740
C = 0.39620
D = 0.64492
E = 0.73549
F = 0.58578

n_1 = 1.25423
n_2 = 2.05171
n_3 = 2.52397
n_4 = 1.55057
n_5 = 1.35964

$\frac{A^2 \cdot B \cdot E}{(A^2 \cdot B + A \cdot C \cdot D) - B \cdot C \cdot D} - F = 0.00000$

$\frac{n_3 \cdot n_4}{n_5 \cdot ((n_1 \cdot n_2 - n_1^2) + n_3 \cdot n_4)} - F = 0.00000$



1CST7R5

Given. $A := .85164$ $B := .61697$ $C := .29588$ $D := .38995$ $E := .69787$ $F := .77730$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E} \quad n_6 := \frac{1}{F}$$

Descriptions.

$$fg := \frac{B}{B + C} \qquad bg := \frac{B \cdot C}{B + C} \qquad ac := \frac{A \cdot (1 - fg)}{A - bg}$$

$$be := D \cdot (1 - ac) \qquad bk := \frac{be}{ac} \qquad hj := \frac{bk}{bk + A}$$

$$ao := \frac{E}{hj} \qquad G := \frac{F \cdot ao}{F + ao} \qquad G = 0.54449$$

Definitions.

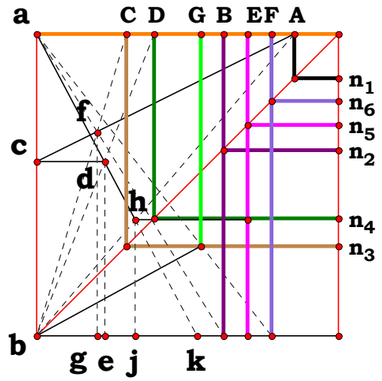
$$G - \frac{E \cdot F \cdot \left[A^2 \cdot C + B \cdot D \cdot (A - C)\right]}{A \cdot E \cdot (A \cdot C + B \cdot D) + B \cdot D \cdot (A \cdot F - C \cdot E - C \cdot F)} = 0$$

$$G - \frac{n_1 \cdot n_3 - {n_1}^2 + n_2 \cdot n_4}{n_1 \cdot n_3 \cdot n_5 - {n_1}^2 \cdot n_6 - {n_1}^2 \cdot n_5 + n_1 \cdot n_3 \cdot n_6 + n_2 \cdot n_4 \cdot n_6} = 0$$

Unit = 1.00000

A = 0.85164
B = 0.61697
C = 0.29588
D = 0.38995
E = 0.69787
F = 0.77730
G = 0.54449

n_1 = 1.17420
n_2 = 1.62081
n_3 = 3.37969
n_4 = 2.56440
n_5 = 1.43293
n_6 = 1.28651

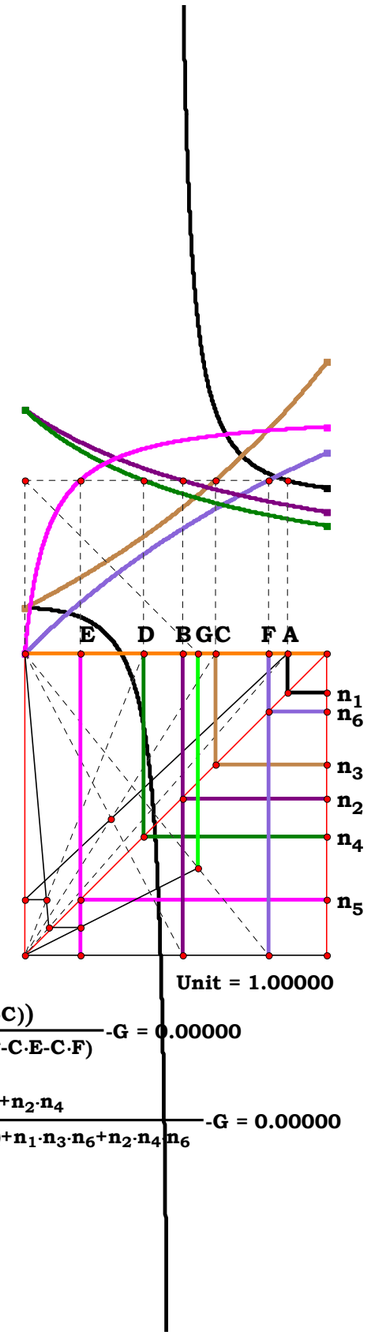


$$\frac{E \cdot F \cdot (A^2 \cdot C + B \cdot D \cdot (A - C))}{A \cdot E \cdot (A \cdot C + B \cdot D) + B \cdot D \cdot (A \cdot F - C \cdot E - C \cdot F)} - G = 0.00000$$

$$\frac{(n_1 \cdot n_3 - {n_1}^2) + n_2 \cdot n_4}{(n_1 \cdot n_3 \cdot n_5 - {n_1}^2 \cdot n_6 - {n_1}^2 \cdot n_5) + n_1 \cdot n_3 \cdot n_6 + n_2 \cdot n_4 \cdot n_6} - G = 0.00000$$

A = 0.86836
B = 0.52084
C = 0.63027
D = 0.39413
E = 0.18375
F = 0.80655
G = 0.57231

n_1 = 1.15160
n_2 = 1.91998
n_3 = 1.58662
n_4 = 2.53721
n_5 = 5.44216
n_6 = 1.23984



Unit = 1.00000

$$\frac{E \cdot F \cdot (A^2 \cdot C + B \cdot D \cdot (A - C))}{A \cdot E \cdot (A \cdot C + B \cdot D) + B \cdot D \cdot (A \cdot F - C \cdot E - C \cdot F)} - G = 0.00000$$

$$\frac{(n_1 \cdot n_3 - {n_1}^2) + n_2 \cdot n_4}{(n_1 \cdot n_3 \cdot n_5 - {n_1}^2 \cdot n_6 - {n_1}^2 \cdot n_5) + n_1 \cdot n_3 \cdot n_6 + n_2 \cdot n_4 \cdot n_6} - G = 0.00000$$

1CST7R6

Given.

$A := .82656$ $B := .76745$ $C := .36276$ $D := .60731$ $E := .48888$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$ $n_5 := \frac{1}{E}$

Descriptions.

$hj := \frac{B}{B + C}$ $bj := hj \cdot C$

$ac := \frac{A \cdot (1 - hj)}{A - bj}$ $be := D \cdot (1 - ac)$

$bk := \frac{be}{ac}$ $fg := \frac{bk}{A + bk}$

$F := \frac{E}{(1 - fg)}$ $F = 0.915288$

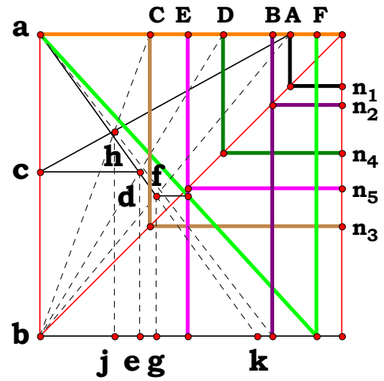
Definitions.

$$F - \frac{E \cdot \left(A^2 \cdot C + A \cdot B \cdot D - B \cdot C \cdot D\right)}{A^2 \cdot C} = 0$$

$$F - \frac{n_1 \cdot n_3 - n_1^{\,2} + n_2 \cdot n_4}{n_2 \cdot n_4 \cdot n_5} = 0$$

Unit = 1.00000
A = 0.82656
B = 0.76745
C = 0.36276
D = 0.60731
E = 0.48888
F = 0.91528

n_1 = 1.20983
n_2 = 1.30302
n_3 = 2.75663
n_4 = 1.64662
n_5 = 2.04550

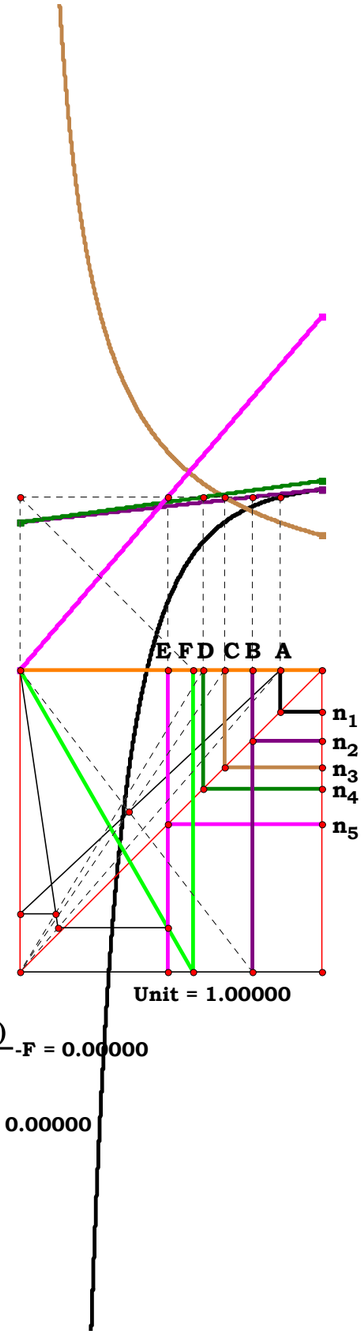


$$\frac{E \cdot ((A^2 \cdot C + A \cdot B \cdot D) - B \cdot C \cdot D)}{A^2 \cdot C} - F = 0.00000$$

$$\frac{(n_1 \cdot n_3 - n_1^{\,2}) + n_2 \cdot n_4}{n_2 \cdot n_4 \cdot n_5} - F = 0.00000$$

A = 0.86000
B = 0.76745
C = 0.67625
D = 0.60731
E = 0.48888
F = 0.57259

n_1 = 1.16279
n_2 = 1.30302
n_3 = 1.47874
n_4 = 1.64662
n_5 = 2.04550



$$\frac{E \cdot ((A^2 \cdot C + A \cdot B \cdot D) - B \cdot C \cdot D)}{A^2 \cdot C} - F = 0.00000$$

$$\frac{(n_1 \cdot n_3 - n_1^{\,2}) + n_2 \cdot n_4}{n_2 \cdot n_4 \cdot n_5} - F = 0.00000$$

1CST7R7

Given. $A := .86000$ $B := .76745$ $C := .35858$ $D := .67836$ $E := .62263$ $F := .28408$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E} \quad n_6 := \frac{1}{F}$$

Descriptions.

$$fg := \frac{B}{B + C} \qquad bg := fg \cdot C \qquad ac := \frac{A \cdot (1 - fg)}{A - bg}$$

$$be := D \cdot (1 - ac) \qquad bn := \frac{be}{ac} \qquad hj := \frac{bn}{bn + A}$$

$$bp := E \cdot (1 - hj) \qquad km := \frac{F \cdot hj}{bp} \qquad G := \frac{F}{1 - km}$$

$G = 0.515662$

Definitions.

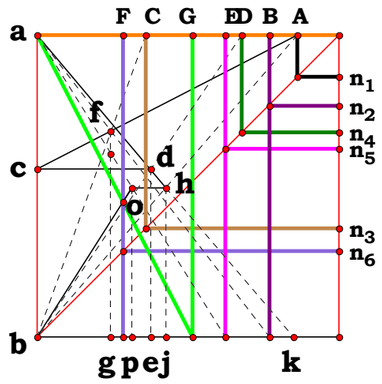
$$G - \frac{A^2 \cdot C \cdot E \cdot F}{A^2 \cdot C \cdot E - A \cdot B \cdot D \cdot F + B \cdot C \cdot D \cdot F} = 0$$

$$G - \frac{n_2 \cdot n_4}{n_5 \cdot {n_1}^2 - n_3 \cdot n_5 \cdot n_1 + n_2 \cdot n_4 \cdot n_6} = 0$$

Unit = 1.00000

A = 0.86000
B = 0.76745
C = 0.35858
D = 0.67836
E = 0.62263
F = 0.28408
G = 0.51564

$n_1 = 1.16279$
$n_2 = 1.30302$
$n_3 = 2.78876$
$n_4 = 1.47414$
$n_5 = 1.60608$
$n_6 = 3.52019$



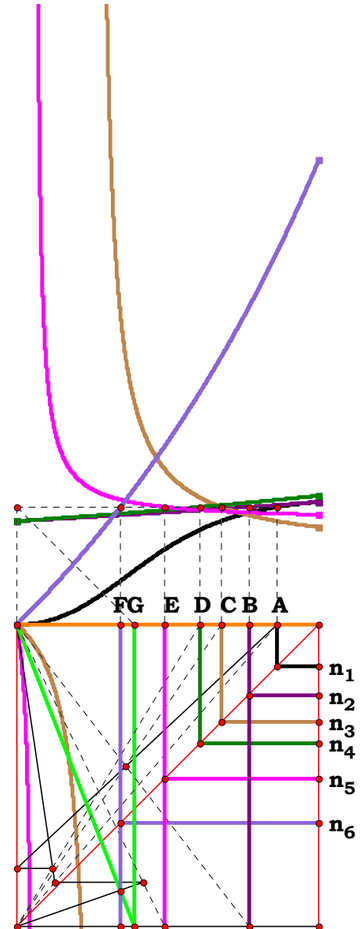
$$\frac{A^2 \cdot C \cdot E \cdot F}{(A^2 \cdot C \cdot E - A \cdot B \cdot D \cdot F) + B \cdot C \cdot D \cdot F} - G = 0.00000$$

$$\frac{n_2 \cdot n_4}{(n_1{}^2 \cdot n_5 - n_1 \cdot n_3 \cdot n_5) + n_2 \cdot n_4 \cdot n_6} - G = 0.00000$$

Unit = 1.00000

A = 0.86000
B = 0.76745
C = 0.67625
D = 0.60731
E = 0.48888
F = 0.34259
G = 0.38931

$n_1 = 1.16279$
$n_2 = 1.30302$
$n_3 = 1.47874$
$n_4 = 1.64662$
$n_5 = 2.04550$
$n_6 = 2.91891$



$$\frac{A^2 \cdot C \cdot E \cdot F}{(A^2 \cdot C \cdot E - A \cdot B \cdot D \cdot F) + B \cdot C \cdot D \cdot F} - G = 0.00000$$

$$\frac{n_2 \cdot n_4}{(n_1{}^2 \cdot n_5 - n_1 \cdot n_3 \cdot n_5) + n_2 \cdot n_4 \cdot n_6} - G = 0.00000$$

1CST7R8

Given. $A := .72625$ $B := .40798$ $C := .56757$ $D := .63656$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$$

Descriptions.

$$de := \frac{C}{C + D} \qquad ad := D \cdot de$$

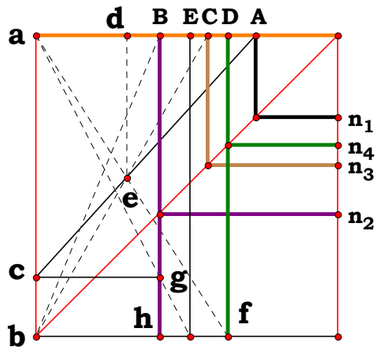
$$ac := \frac{de \cdot A}{A - ad} \qquad E := \frac{B}{ac}$$

$E = 0.507956$

Definitions.

$$E - \frac{A \cdot B \cdot C + A \cdot B \cdot D - B \cdot C \cdot D}{A \cdot C} = 0$$

$$E - \frac{n_3 - n_1 + n_4}{n_2 \cdot n_4} = 0$$



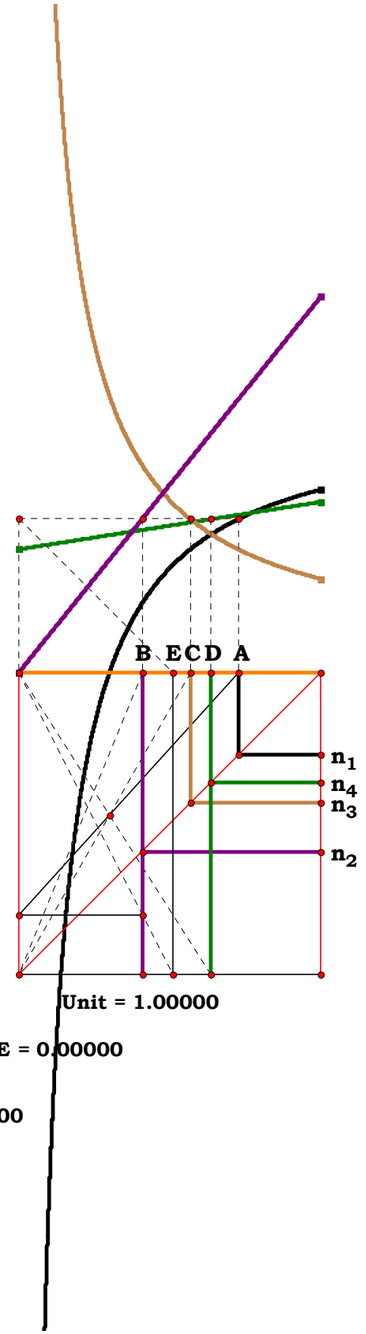
Unit = 1.00000

A = 0.72625
B = 0.40798
C = 0.56757
D = 0.63656
E = 0.50795

n_1 = 1.37694
n_2 = 2.45109
n_3 = 1.76188
n_4 = 1.57093

$$\frac{(A \cdot B \cdot C + A \cdot B \cdot D) - B \cdot C \cdot D}{A \cdot C} - E = 0.00000$$

$$\frac{(n_3 + n_4) - n_1}{n_2 \cdot n_4} - E = 0.00000$$



A = 0.72625
B = 0.40798
C = 0.56757
D = 0.63656
E = 0.50795

n_1 = 1.37694
n_2 = 2.45109
n_3 = 1.76188
n_4 = 1.57093

Unit = 1.00000

$$\frac{(A \cdot B \cdot C + A \cdot B \cdot D) - B \cdot C \cdot D}{A \cdot C} - E = 0.00000$$

$$\frac{(n_3 + n_4) - n_1}{n_2 \cdot n_4} - E = 0.00000$$

1CST7R9

Given. $A := .86000$ $B := .37036$

$C := .72223$ $D := .54879$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$af := \frac{B \cdot C}{B + C}$ $fg := \frac{af}{C}$

$ac := \frac{fg \cdot A}{A - af}$ $de := 1 - ac$

$be := D \cdot ac$ $E := \frac{be}{de}$ $E = 0.494284$

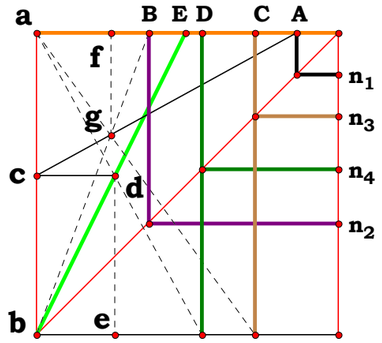
Definitions.

$E - \frac{A \cdot B \cdot D}{A \cdot C - B \cdot C} = 0$

$E - \frac{n_3}{n_4 \cdot (n_2 - n_1)} = 0$

Unit = 1.00000

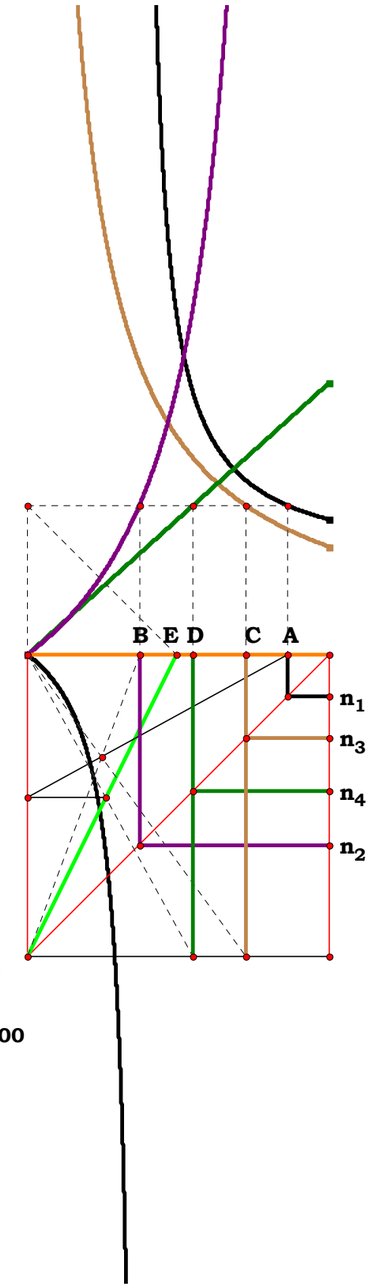
A = 0.86000
B = 0.37036
C = 0.72223
D = 0.54879
E = 0.49429



$n_1 = 1.16279$
$n_2 = 2.70005$
$n_3 = 1.38460$
$n_4 = 1.82220$

$\frac{A \cdot B \cdot D}{A \cdot C - B \cdot C} - E = 0.00000$

$\frac{n_3}{n_4 \cdot (n_2 - n_1)} - E = 0.00000$



Unit = 1.00000

A = 0.86000
B = 0.37036
C = 0.72223
D = 0.54879
E = 0.49429

$n_1 = 1.16279$
$n_2 = 2.70005$
$n_3 = 1.38460$
$n_4 = 1.82220$

$\frac{A \cdot B \cdot D}{A \cdot C - B \cdot C} - E = 0.00000$

$\frac{n_3}{n_4 \cdot (n_2 - n_1)} - E = 0.00000$

1CST7R10

Given. $A := .77222$ $B := .22825$

$C := .48335$ $D := .63238$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$de := \frac{C}{C + D}$ $ad := D \cdot de$

$ac := \frac{de \cdot A}{A - ad}$ $E := \frac{B}{1 - ac}$

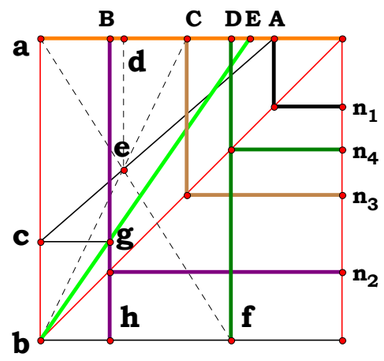
$E = 0.694623$

Definitions.

$E - \frac{A \cdot B \cdot C + A \cdot B \cdot D - B \cdot C \cdot D}{A \cdot D - C \cdot D} = 0$

$E - \frac{n_3 - n_1 + n_4}{n_2 \cdot (n_3 - n_1)} = 0$

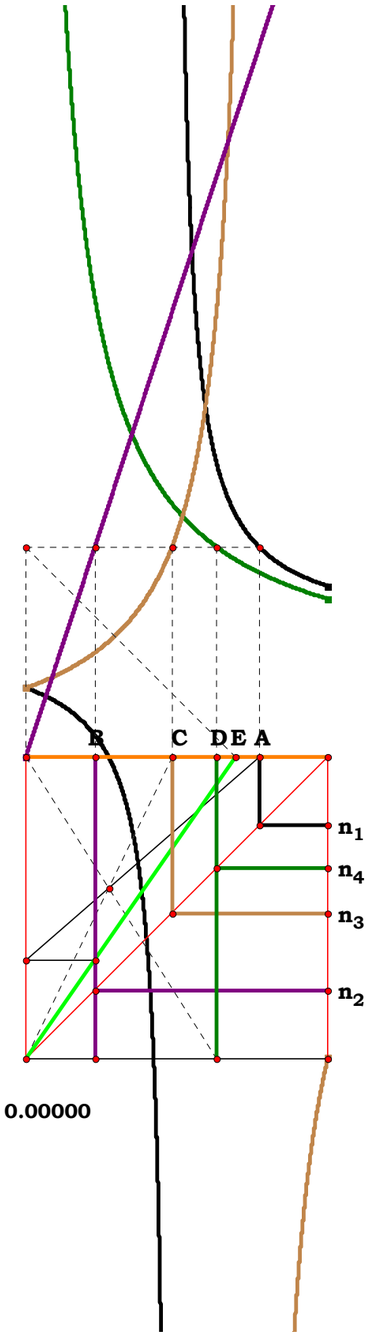
Unit = 1.00000
A = 0.77222
B = 0.22825
C = 0.48335
D = 0.63238
E = 0.69462



$n_1 = 1.29496$
$n_2 = 4.38117$
$n_3 = 2.06888$
$n_4 = 1.58132$

$\frac{(A \cdot B \cdot C + A \cdot B \cdot D) - B \cdot C \cdot D}{A \cdot D - C \cdot D} - E = 0.00000$

$\frac{(n_3 + n_4) - n_1}{n_2 \cdot (n_3 - n_1)} - E = 0.00000$



Unit = 1.00000
A = 0.77222
B = 0.22825
C = 0.48335
D = 0.63238
E = 0.69462

$n_1 = 1.29496$
$n_2 = 4.38117$
$n_3 = 2.06888$
$n_4 = 1.58132$

$\frac{(A \cdot B \cdot C + A \cdot B \cdot D) - B \cdot C \cdot D}{A \cdot D - C \cdot D} - E = 0.00000$

$\frac{(n_3 + n_4) - n_1}{n_2 \cdot (n_3 - n_1)} - E = 0.00000$

1CST7R11

Given. $A := .86000$

$B := .72983$ $C := .29588$

$D := .58641$ $E := .48888$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$ $n_5 := \frac{1}{E}$

Descriptions.

$fg := \frac{B}{B + C}$ $bg := C \cdot fg$ $ac := \frac{A \cdot (1 - fg)}{A - bg}$

$be := D \cdot (1 - ac)$ $bp := \frac{be}{ac}$ $hj := \frac{bp}{bp + A}$

$bo := E \cdot (1 - hj)$ $F := \frac{bo}{hj}$

$F = 0.443119$

Definitions.

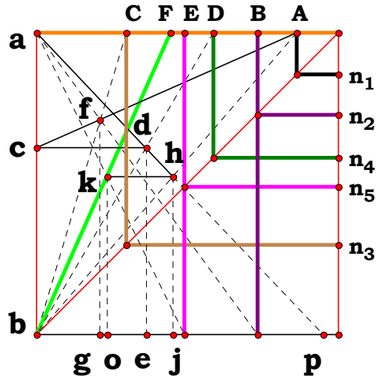
$$F - \frac{A^2 \cdot C \cdot E}{B \cdot D \cdot (A - C)} = 0$$

$$F - \frac{n_2 \cdot n_4}{n_5 \cdot n_1 \cdot (n_3 - n_1)} = 0$$

Unit = 1.00000

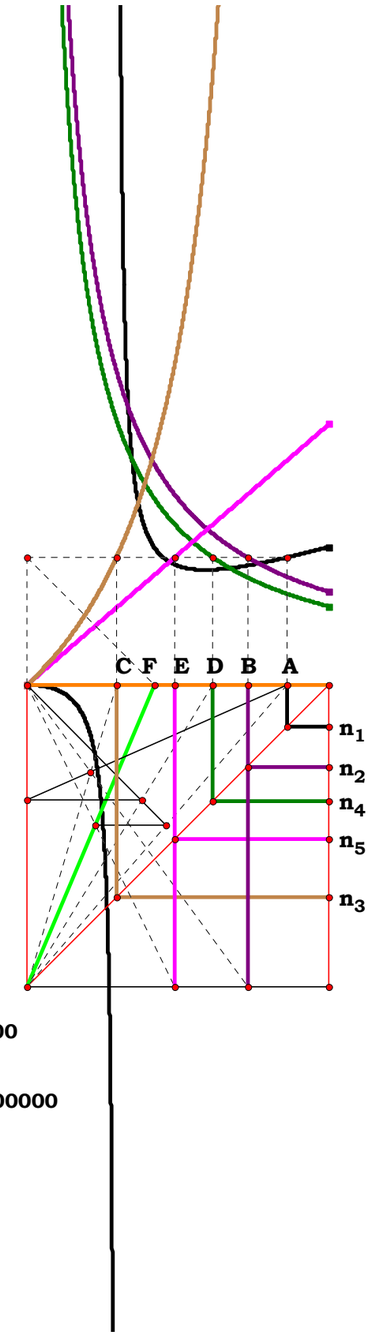
A = 0.86000
B = 0.72983
C = 0.29588
D = 0.58641
E = 0.48888
F = 0.44313

n_1 = 1.16279
n_2 = 1.37018
n_3 = 3.37969
n_4 = 1.70530
n_5 = 2.04550



$\frac{A^2 \cdot C \cdot E}{B \cdot D \cdot (A - C)} - F = 0.00000$

$\frac{n_2 \cdot n_4}{n_5 \cdot n_1 \cdot (n_3 - n_1)} - F = 0.00000$



1CST7R12

Given. $A := .84746$

$B := .62533$ $C := .25409$

$D := .48191$ $E := .34676$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$fg := \frac{B}{B + C} \qquad bg := fg \cdot C \qquad ac := \frac{A \cdot (1 - fg)}{A - bg}$$

$$be := D \cdot (1 - ac) \qquad bo := \frac{be}{ac} \qquad hj := \frac{bo}{bo + A}$$

$$F := \frac{E}{hj} \qquad F = 0.700639$$

Definitions.

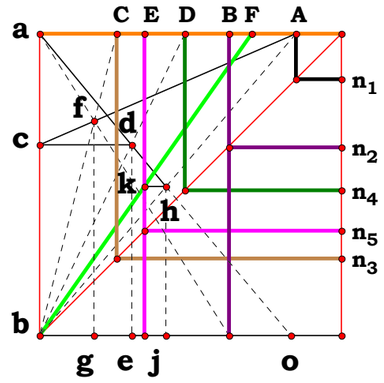
$$F - \frac{E \cdot \left[A^2 \cdot C + B \cdot D \cdot (A - C)\right]}{B \cdot D \cdot (A - C)} = 0$$

$$F - \frac{{n_1}^2 - n_1 \cdot n_3 - n_2 \cdot n_4}{n_1 \cdot n_5 \cdot \left(n_1 - n_3\right)} = 0$$

Unit = 1.00000

A = 0.84746
B = 0.62533
C = 0.25409
D = 0.48191
E = 0.34676
F = 0.70064

n_1 = 1.17999
n_2 = 1.59915
n_3 = 3.93566
n_4 = 2.07507
n_5 = 2.88380



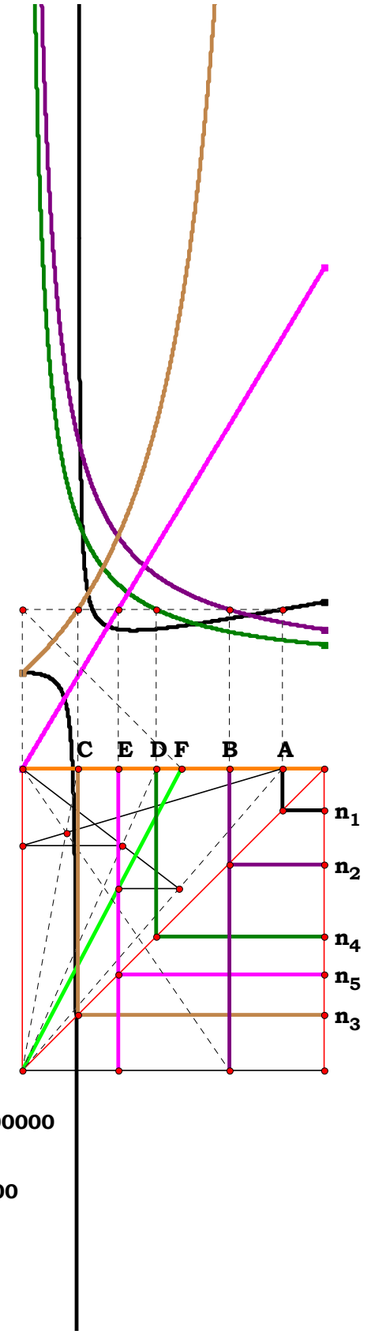
$$\frac{E \cdot (A^2 \cdot C + B \cdot D \cdot (A - C))}{B \cdot D \cdot (A - C)} - F = 0.00000$$

$$\frac{{n_1}^2 - n_1 \cdot n_3 - n_2 \cdot n_4}{n_1 \cdot n_5 \cdot (n_1 - n_3)} - F = 0.00000$$

Unit = 1.00000

A = 0.86000
B = 0.68385
C = 0.18303
D = 0.44429
E = 0.31751
F = 0.52647

n_1 = 1.16279
n_2 = 1.46231
n_3 = 5.46360
n_4 = 2.25077
n_5 = 3.14955



$$\frac{E \cdot (A^2 \cdot C + B \cdot D \cdot (A - C))}{B \cdot D \cdot (A - C)} - F = 0.00000$$

$$\frac{{n_1}^2 - n_1 \cdot n_3 - n_2 \cdot n_4}{n_1 \cdot n_5 \cdot (n_1 - n_3)} - F = 0.00000$$